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Note
98-06

Contract for Manpower and Personnel Research and Studies (COMPRS) for the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) – Final Annual Report: Year Five

Human Resources Research Organization

United States Army Research Institute
for the Behavioral and Social Sciences

July 1998

U.S. Army Research Institute
for the Behavioral and Social Sciences

A Directorate of the U.S. Total Army Personnel Command

EDGAR M. JOHNSON
Director

Research accomplished under contract
for the Department of the Army

Human Resources Research Organization

Technical Review by

Judith E. Brooks

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This report documents the fifth and final year of a 5-year project to provide the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) short- and medium-term scientific and technical support in solving problems related to manpower and personnel. The three COMPRS programs are (1) quick reaction; (2) attitude and opinion surveys; and (3) medium term. During the fifth year of the contract, 20 delivery orders were initiated, 14 in the quick reaction program, 3 in the attitude and opinion survey program, and 3 in the medium-term program. This report includes a summary of activities during the life of the contract, plus a very brief overview of each delivery order awarded under this contract.

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Contract for Manpower Personnel Research and Studies (COMPRS)
Annual Report-Year Five

Introduction

This report documents a five-year (two base years and three option years) project to provide the Army Research Institute (ARI) non-personal, short- and medium-term scientific and technical support services in the solution of problems related to manpower and personnel. The program is referred to as the Contract for Manpower and Personnel Research and Studies (COMPRS). HumRRO's primary responsibilities have been to administer the COMPRS for ARI under firm fixed-priced contracts by managing three inter-related tasks: (1) managing the COMPRS program in accordance with established operating procedures, (2) receiving and processing individual Statements of Tasks from ARI, and (3) managing, reporting progress on, and documenting completion of delivery orders.

COMPRS included three programs. They are summarized below and are described in detail in Appendix A:

- **Quick Reaction (QR) Program** - Intended to provide ARI responsive, short-term research or studies and analysis dealing with manpower and personnel issues for which ARI in-house capability is not available. Each of the QR Program delivery orders (DOs) shall be completed within a period of time specified in the DO, with the maximum allowable completion normally being within 12 months of the date of the DO.

- **Attitude and Opinion Survey (AOS) Program** - Intended to give ARI the ability to conduct surveys to provide information for accession and force management decision-making. Each of the AOS Program DOs shall be completed within a period of time specified in the DO, with the maximum allowable completion normally being within 12 months of the date of the DO or 18 months if OMB approval is required.

- **Medium-Term (MT) Program** - Intended to give ARI the ability to conduct a limited number of research efforts or studies and analyses whose duration would not normally exceed 24 months after the contractor receives the DO.

Summary of Activities

A total of 77 DOs have been issued under COMPRS. During the first year of the contract, 22 DOs were initiated, to include DO# 0001 which provided for the overall management of the COMPRS during its two-year base period. During the second year of the contact, 10 DOs were initiated. In the third year of the contract, 14 DOs were initiated, one of which (DO #0033) provided overall COMPRS management for the three-year option period. In the fourth year of the contract, 13 DOs were initiated, and in the final year of the contract, 18 DOs were issued. Most DOs conducted in COMPRS (65%) were issued under the Quick Reaction Program. Table 1 summarizes DO activity for all five contract years.

Table 1. Summary of Delivery Order Activity

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Number DOs initiated	22	10	14	13	20	79
Contract administration	1	0	1	0	0	2
Quick reaction	12	8	9	9	14	52
Attitude/opinion survey	7	0	1	1	3	12
Medium term	2	2	3	3	3	13
Number active DOs in June of the reporting year	8	7	18	18	21	n/a

Summaries for each DO initiated during the contract follow. Each summary provides the following information:

- The DO number and title.
- The program area.
- The DO contracting officer's representative (DO-COR), assistant DO-COR, if one is assigned, and the contractor's project director.
- A statement of the problem.
- The objectives of the DO effort.
- The DO status (either ongoing or completed), to include the dates.
- The results (if completed or near completion).
- Three sections describing documents and products--a bibliography section, a products section, and a section on planned documents and products. These final sections include only the most significant documents and products, not the standard requirements of each DO, such as a management plan, data collection instruments, and the like.

These summaries are not intended to provide significant detail about each DO; that information can be provided by the DO-COR upon request. The summaries are intended to give a very brief overview of each effort as well as to provide a snapshot of the contract's activities.

DO# 0001	Title: Contract Administration/Reports/Other Deliverables
Program Area QR _____ AOS _____ MT _____	DO-COR: Dr. David Witter DO-ACOR: Project Director: Dr. Deirdre Knapp

DO Summary

Problem: Providing information on manpower and personnel issues to Army decision-and policy-makers is often a complex, dynamic, multi-stage, iterative process. The accuracy and timeliness of information provided to decision makers are of paramount importance in affecting the quality of decisions and policies. Over the next decade, the U.S. Army will experience an increasing requirement to bring individuals into the Army who are trainable in a wide variety of skill areas. To meet and maintain its high quality manpower needs of the 1990's, the Army will have to develop and implement programs that allow it to locate, assess, assign, and use human resources more efficiently and effectively than it ever has before. As new Army policies are being developed to enhance the Army's ability to man the force, the Army needs programs of research and studies that will provide a quick response mechanism to gather and analyze data on the expected or actual short-term effectiveness of those policies.

Scientific and technical support services are being used that lead to the development and implementation of programs of research and studies on the expected or actual effectiveness of Manpower, Personnel, and Training (MPT) programs. These efforts are part of ARI's MPT program to man the force by conducting research and studies to improve the Army's ability to recruit, identify, assess, classify, assign, lead, train, and maintain the personnel required for the Army.

Objectives: The objectives of this delivery order were to administer the Contract for Manpower and Personnel Research and Studies (COMPRS) for ARI under firm fixed-priced contracts by managing three inter-related tasks: (1) managing the COMPRS program in accordance with established operating procedures, (2) receiving and processing individual Statements of Tasks from ARI, and (3) managing, reporting project progress, and documenting delivery order completion.

Status: Completed (July 1, 1993-June 30, 1995)

Results: Described further under each Delivery Order Summary

Bibliography: See each Delivery Order Summary

Products: The following Delivery Orders were issued during Year 1:

- DO 0001 Contract Administration/Reports/Other Deliverables
- DO 0002 Evaluation of the Effectiveness of Job Assistance Centers in the Army Career and Alumni Program (ACAP)
- DO 0003 Survey of Nurses and Nursing Students
- DO 0004 Gender Integration of Basic Training
- DO 0005 Design and Develop Prototype Army officer Personnel Inventory, Cost and Compensation (OPICC) Model
- DO 0006 Evaluation of Job Assistance Centers in the Army Career and Alumni Program (ACAP)
- DO 0007 Army Tests, Evaluations, and Experimentation with Army Combat Division Structure
- DO 0008 1991 Guard/Reserve Survey of Officers and Enlisted Personnel: File Weighting
- DO 0009 Sampling Plan for the 1994 Health Care Survey of DoD Beneficiaries
- DO 0010 Economic and Occupational Analyses of 1992 DoD Reserve Surveys
- DO 0011 Methods for the Evaluation of C2 Systems
- DO 0012 Improving Family Adaptation to the Stresses of Family Life
- DO 0013 Support for Review of Army Occupational Survey Program
- DO 0014 1993 Population Representation in the Military Services Report (POPREP93)
- DO 0015 Revision of the Army Career transition Survey (ACTS)
- DO 0016 Update of Army Research Institute's Officer and Enlisted Personnel Research Data Bases for 1993 and 1994
- DO 0017 Preparing a Book on Computerized Adaptive Testing Version of the Armed Services Vocational Aptitude Test Battery (CAT-ASVAB)
- DO 0018 Exploring Human Dimensions of Battle Command
- DO 0019 Phase 1: Promotion and Professional Development in a Smaller, CONUS-based Army
- DO 0020 Development of Measures for Sinai Peacekeeping
- DO 0021 Longitudinal research on Officer Careers (LROC)
- DO 0022 Impact of Battalion Peacekeeping Requirements on the Sponsoring Army National Guard Division

Products: The following Delivery Orders were issued during Year 2:

- DO 0023 Identifying the Attrition Problem and Its Solutions
- DO 0024 Modeling the Enlistment Decision with Army Communication Objectives Measurement Systems Data
- DO 0025 Research Findings on Soldier Selection and Their Implications for Army Policy and Programs
- DO 0026 Intercultural Communication Analysis for Special Forces
- DO 0027 Phase 2: Promotion and Professional Development in a Smaller, CONUS-Based Army
- DO 0028 Soldier Selection Database Maintenance
- DO 0029 FY 1994 Population Representation in the Military Services Report (POPREP94)
- DO 0030 Selection and Assessment Support for Special Operations Forces: Phase I
- DO 0031 Technology Review of the Use of Continuous Speech Recognition for Language Training
- DO 0032 Modeling the Individual Enlistment Decision

Documents and Products:

Human Resources Research Organization (1994). Contract for Manpower and Personnel Research and Studies for the U.S. Army Research Institute for the Behavioral and Social Sciences: Annual Report (ARI Study Note 95-01).

Human Resources Research Organization (1995). Contract for Manpower and Personnel Research and Studies for the U.S. Army Research Institute for the Behavioral and Social Sciences: Final Annual Report: Year Two.

See each Delivery Order Summary for additional documents and products.

DO# 0002	Title: Evaluation of the Effectiveness of Job Assistance Centers in the Army Career and Alumni Program (ACAP)
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. Joan Harman DO-ACOR: Project Director: Dr. Robert Sadacca

DO Summary

Problem: The Army required a proposal to evaluate the effectiveness of Job Assistance Centers that are part of the Army Career and Alumni Program (ACAP). The proposal was needed to determine the level of resources required to carry out a full-scale evaluation and to allocate funding and data sources.

Objectives: The objective of this project was to provide the Army Career and Alumni Program with a comprehensive evaluation plan that reflects the value to the Army and to the civilian sector of the efforts of Job Assistance staff members to prepare individuals to look for jobs.

Status: Completed (July 21, 1993-August 13, 1993)

Results: Job Assistance Centers (JAC) provide assistance to Army service personnel, civilian employees, and their family members who are transitioning from military jobs to employment in the civilian sector. Services provided by the JAC are designed to prepare individuals for a successful job search. The centers run under auspices of the Army Career and Alumni Program (ACAP) which is part of the DoD Transition Assistance Program. The National Defense Authorization Act of 1991 requires that the Departments of Defense, Labor, and Veterans Affairs provide job transition assistance to military and civilian personnel who would lose their jobs due to installation closures and the downsizing and consolidation of military units. The JAC program is the Army's response to that mandate.

The Department of Labor (DoL), also in response to the Congressional mandate, has established Transition Assistance Offices (TAO) near DoD installations nationwide. The JAC and TAO often serve the same Army and other DoD installations. The programs of assistance provided by the JAC and TAO, however, are designed to complement each other. The DoL program provides group seminars or classes designed to increase the general job search skills of the separating service personnel. The JAC, on the other hand, provide more individualized counseling services geared to the particular vocational experience and plans of the transitioning soldiers, Army civilians, and their family members. Questions have been raised about the cost effectiveness of maintaining the JAC program at locations where the DoL program is also available (the DoL program is not available overseas). Specifically, the added value of the JAC program to transitioning Army personnel and their family members has been questioned by the DoD Inspector General. Essentially, this evaluation of the JAC is being conducted to determine the answer to three basic questions:

1. How do JAC clients compare with non-JAC clients in regard to post-separation employment?
2. Which JAC services have the most impact on success in achieving employment?
3. Considering the additional costs of providing JAC services, are the added benefits derived from the program cost effective?

The first question can be answered in a number of ways depending upon the aspect of employment/unemployment examined. Several types of program criterion or outcome measures could be obtained on separate samples; these measures would constitute the dependent variables in the planned multivariate analyses. The analyses would focus on differences in post-separation employment of recipients and non-recipients of JAC services while controlling for personal and family factors and the military job experience of the sampled individuals. The answer to the second question would also be answered through multivariate analyses. Whether or not individuals received given JAC services can be ascertained from the JAC database and confirmed in follow-up interviews. Variables measuring receipt/nonreceipt of particular services can be created. The effects (direct, indirect, and total) of these measures on the outcome measures can then be ascertained within the context of model(s) that attempt to capture the interrelationships among all the variables of interest. The third question may be the most difficult to answer. Assuming that the multivariate analyses indicate that individuals who received JAC services are more successful in obtaining post-separation employment, the employment differential or program benefits obtained must be evaluated in terms of the monetary costs of providing the job assistance services.

Bibliography:

Sadacca, R., Harris, D.A., & Laurence, J.H. (1993). Plan for the evaluation of Job Assistance Centers. HumRRO Final Report FR-PRD-93-25. Alexandria, VA: Human Resources Research Organization (HumRRO). (ARI Study Note 94-03, November 1994).

Products:

Planned Documents and Products:

DO# 0003	Title: Surveys of Nurses and Nursing Students
Program Area QR _____ AOS __X__ MT _____	DO-COR: Dr. Ronald B. Tiggle DO-ACOR: CPT Mike Stehlik Project Director: Dr. Peter F. Ramsberger

DO Summary

Problem: The Army Nurse Corps (ANC) comprises about 4,000 Registered Nurses (RNs). To maintain readiness, approximately 500 new recruits must be enlisted each year. The Army needed to obtain attitudes and perceptions of employed civilian nurses and nursing students toward serving in the Army Nurse Corps. The effects of Operation Desert Shield/Storm and military downsizing on attitudes were of particular concern. Data regarding the field of nursing and perceptions of the ANC among current and future RNs were required to accomplish this objective. This effort involved collecting survey data, analyzing data, and developing the database and supporting documentation.

Objectives: The objective of this project was to provide the Army with information on the nurse prospect market, by assessing attitudes and perceptions of nursing students and civilian nurses toward Army service. Comparative information about nurses' perceptions of military nursing and civilian nursing was needed to support Army advertising policy and enlistment incentive strategies in the post-Operation Desert Storm era. In addition, a literature review was conducted to shed further light on the status of nurses and their profession.

Status: Completed (July 29, 1993-September 30, 1994)

Results: **Literature Review.** A review of both the military and civilian literatures regarding the profession of nursing was conducted to provide a background for the surveys. Among the major findings was that the long touted shortage of nurses appeared to have abated starting in the early 1990s. At that time, vacancy rates began to fall and hiring freezes were put into place at many institutions. There were several reasons for this, including shorter hospital stays, more out-patient and alternative care settings, and the movement within the health care industry to hold down costs. Even in the face of this development, however, the number of nursing programs and graduates was increasing. In part this may be attributable to an increase in salaries for those in the field, although there is still concern that nurses do not have opportunities to achieve substantial increases in earnings over the course of their careers. The field of nursing is in a state of flux, and will likely remain so until the major questions regarding the provision and financing of health care are answered.

Survey of Nurses and Nursing Students. The results of the survey indicated that there was a great deal of similarity between nurses and nursing students in terms of their reasons for entering the field and positive and negative influences in that regard. Overall, nurses were satisfied with their field, although there were areas of significant dissatisfaction (e.g., the amount of paperwork). The level of familiarity with the Army Nurse Corps (ANC) was high, and many aspects of the ANC were attractive to both current and future RNs. However, the possibility of relocation, chance of serving in/around combat, prospect of weekend Reserve duty, and military lifestyle were seen by large proportions of each sample as being negative attributes of military service. Interest in enlisting in the ANC was fairly low among both groups, with significant portions of respondents indicating that the probability that they would join was smaller following Operations Desert Shield and Desert Storm.

Bibliography:

Lerro, P., Ramsberger, P., DiFazio, A., & Barnes, J. (1993). Final survey administration plan. Alexandria, VA: Human Resources Research Organization (HumRRO).

Schultz, S.R., & Brown, K.M. (1994). Nursing in the nineties: Profile of a profession at the crossroad. Alexandria, VA: Human Resources Research Organization (HumRRO).

Ramsberger, P.F., & DiFazio, A.S. (1994). Survey of Total Army Personnel (STAMP): Analyses of Active Duty and Reserve/Guard Army Nurse Corps Data. Alexandria, VA: Human Resources Research Organization. (ARI Technical Report 1026, May 1995).

HumRRO (1994). U.S. Army survey of civilian Registered Nurses: User's manual and codebook. Alexandria, VA: Author.

HumRRO (1994). U.S. Army survey of nursing students: User's manual and codebook. Alexandria, VA: Author.

Ramsberger, P.F., Barnes, J.D., DiFazio, A.S., & Tiggle, R. (1994). The U.S. Army Survey of Registered Nurses and the U.S. Army Survey of Nursing Students: Methodology and Results. Alexandria, VA: Human Resources Research Organization. [Final Delivery Order Report]

Products:

U.S. Army Survey of Registered Nurses, survey, codebook, datafile
U.S. Army Survey of Nursing Students, survey, codebook, datafile

Planned Documents and Products:

DO# 0004	Title: Gender Integration of Basic Training
Program Area QR ___X___ AOS _____ MT _____	DO-COR: Dr. Jacqueline A. Mottern DO-ACOR: Dr. Morris P. Peterson Project Director: Dr. Shelley Perry

DO Summary

Problem: The U.S. Army wanted to study the attitudes of trainees and cadre toward gender-integrated and same gender basic entry training. Prior research has evaluated the performance of basic entry trainees in gender-integrated and same gender squads. However, the research did not measure the attitudes and opinions of either the trainees or training cadre of gender-integrated and same gender basic training squads.

Objectives: This effort had the following objectives: (1) to collect information on the attitudes and opinions of soldiers and training cadre about basic entry training in same gender and gender-integrated squads; (2) to describe training activities in the squads; (3) to assess performance by females and males in the squads; and (4) to identify changes--if any--in attitudes towards training and the performances of females and males.

Status: Completed (August 2, 1993-March 31, 1994)

Results: Male and female soldiers entered basic training centers (BCT) with a strong sense of pride and commitment to the Army and a positive opinion about Army career opportunities and values. Although, overall, males seemed a bit more confident, both genders expressed a high degree of confidence in their ability to accomplish specific BCT events successfully, as well as cope with the demands of a military environment.

BCT appears to have been a very positive event for the soldiers in the sample. Most (between 50 and 80 percent), regardless of their self-reported entry-level ability, reported some type of improvement as a result of the training. Response differences across the eight postsurvey composites appeared to be associated more with the gender of the soldier than the type of training (i.e., single-gender or gender-integrated) received. Female responses were significantly more positive than males in the areas of men and women in combat and leadership, affirmative pressure from drill sergeants, perceptions of gender differences, and impact of gender integration. Male responses were significantly more positive than females in the areas of Army career opportunities and values, and platoon teamwork/cohesion. No overall gender differences were noted for responses to pride and commitment to the Army, or with confidence in drill sergeants.

Comparisons of soldiers receiving the single-gender BCT to soldiers receiving the gender-integrated BCT revealed significant differences only in the following four areas: men and women in combat and leadership, confidence in drill sergeants, affirmative pressure from drill sergeants, and perceptions of gender differences. The responses of the single-gender trained group were more positive in all four of these areas. Single-gender males, compared to males trained in the gender-integrated environment, were consistently more positive in the areas of platoon teamwork/cohesion, confidence in drill sergeants, affirmative pressure from drill sergeants, and perceptions of gender differences. These were the only significant differences noted when comparing the two groups.

Females trained in the gender-integrated units were significantly more positive than females trained in single-gender units in their response to items addressing platoon teamwork/cohesion, confidence in drill sergeants, and perceptions of gender differences. Single-gender trained females were more positive about affirmative pressure from drill sergeants.

Changes in soldier attitudes/opinions, as a result of BCT, were measured in the following areas: Army career opportunities and values, pride and commitment to the Army, and men and women in combat and leadership. Significant changes in soldier attitudes/opinions were observed across all three of these areas. Overall, except for females who did not record a change in attitude/opinions, shifts were positive with regard to Army career opportunities and values. All changes were in a negative direction for pride and commitment to the Army, and men and women in combat and leadership. No changes in soldier career plans were noted.

Training cadre were much more positive toward the conduct of BCT in a single-gender environment than a gender-integrated environment. They recommended that gender integration of the soldier's initial entry training be initiated at the time of advanced individual training, not during BCT.

Bibliography:

Perry, M.S., Helmick, J.C., Hintze, D.W., & Marshall-Mies, J.C. (1994). Gender integration of basic entry training: A study of soldier attitudes toward single-gender and gender-integrated training. Final Study Report Volume I. Rockville, MD: Westat, Inc.

Marshall-Mies, J.C., Perry, M.S., Helmick, J.C., & Hintze, D.W. (1994). Gender integration of basic entry training study, focus group results. Final Study Report Volume II. Rockville, MD: Westat, Inc.

Helmick, J.C., Hintze, D.W., & Perry, M.S. (1994). Gender integration of Basic entry training study, technical manual. Rockville, MD: Westat, Inc.

Products:

Final Questionnaires and Survey Materials.

Planned Documents and Products:

DO# 0005	Title: Design and Develop Prototype Army Officer Personnel Inventory, Cost and Compensation (OPICC) Model
Program Area QR __X__ AOS _____ MT _____	**DO-COR:** Dr. Peter M. Greenston **DO-ACOR:** LTC Brad Loo **Project Director:** Dr. Patrick C. Mackin

DO Summary

Problem: In the present downsizing environment, brought on by diminished external threats and lower defense budgets, there is a pressing (and on-going) need for an improved analysis capability within the Army for personnel and manpower policy and officer management. The 7th QRMC has proposed changes in compensation policy. The implications of these changes need to be addressed. For example, the impact upon officer quality and experience distributions of a 15 year retirement program should be assessed.

In moving toward a smaller force structure, the potential impacts of various proposals have to be understood, such as early separation incentives, changes in promotion rules and practices, and signing bonuses following completion of initial service obligation. There is a continuing need to ascertain the impact of various military compensation proposal changes, taking into account projected labor market conditions and civilian wage growth.

To meet this need the Army requires a PC-based policy analysis model in which compensation and other personnel policy changes can be expressed in model variables and/or parameters, the effects upon retention determined, consequent impact upon inventories projected, and the impact upon personnel costs estimated.

Objectives: The objective of this project was to estimate a multi-period econometric model of Army officer retention for the OPMD officer force and to design, code, test, and implement a PC-based policy analysis tool suitable for examining the effects of compensation and other personnel policy changes upon the inventory of Army officers and for predicting these effects over a six-year projection horizon.

Status: Completed (August 27, 1993-February 17, 1995)

Results: Project staff successfully estimated a thirteen-period panel probit (ACOL-2) retention model for the Army OPMD officer force. The model used data on voluntary retention decisions from FY1979 through FY1992 and years of service 3 through 15. The results of this estimation were incorporated in the Officer Personnel Inventory, Cost and Compensation (OPICC) inventory-projection model.

The OPICC model allows for a variety of policy scenarios to be manipulated by users, including future pays, severance options, retirement, unemployment, inflation, and accessions. In addition, users may model promotion behavior using three different approaches. The model explicitly tracks inventory across four dimensions: years of service, pay grade, time in grade, and remaining obligation. Finally the model automates the inventory update process to allow ARI to build new inventories from a raw extract of the Officer Master File. Model validation included running the model against historical retention behavior to compare predicted and observed results. ARI analysts and DCSPER personnel participated in training sessions to gain an understanding of OPICC's operation and capabilities.

A software utility was also developed to allow ARI analysts to access three research data bases--the OLRDB, EPRDB (25% sample), and EPRDB (100% sample)--on CD-ROM.

Bibliography:

Mackin, P.C., Hogan, P.F., & Mairs, L.S. (1995). Estimation of Retention Parameters for the Prototype Officer Personnel Inventory, Cost, and Compensation (OPICC) Model- Final Report. Alexandria, VA: Human Resources Research Organization.

Products:

Design and Develop Prototype Officer Personnel Inventory, Cost, and Compensation (OPICC) Model: Software and Data.

O'Brien, K., & Mackin, P. (1994). Officer personnel inventory, cost and compensation model: User manual.

Lewis, D. (1994). CD-ROM Database Access Utility Version 1.1 - User's Guide.

Planned Documents and Products:

DO# 0006	Title: Evaluation of Job Assistance Centers in the Army Career and Alumni Program.
Program Area QR _____ AOS __X__ MT _____	DO-COR: Dr. Joan Harman DO-ACOR: Project Director: Dr. Janice Laurence

DO Summary

Problem: The Army needs to evaluate the effectiveness of Job Assistance Centers (JAC) that are part of the Army Career and Alumni Program (ACAP). This work entails interviewing DoD individuals who have been separated from their military or civilian jobs about their employment status. Job assistance centers provide assistance to Army service personnel, civilian employees, and their family members who are transitioning from military jobs to employment in the civilian sector. Services provided by the JAC are designed to prepare individuals for a successful job search. The centers run under auspices of the ACAP which is part of the DoD Transition Assistance Program. The National Defense Authorization Act of 1991 requires that the Departments of Defense, Labor, and Veterans Affairs provide job transition assistance to military and civilian personnel who would lose their jobs due to installation closures and the downsizing and consolidation of military units. The JAC program is the Army's response to that mandate.

The Department of Labor (DoL), also in response to the Congressional mandate, has established Transition Assistance Offices (TAO) near DoD installations nationwide. The JAC and TAO often serve the same Army and other DoD installations. The programs of assistance provided by the JAC and TAO, however, are designed to complement each other. The DoL program provides group seminars or classes designed to increase the general job search skills of the separating service personnel. The JAC, on the other hand, provide more individualized counseling services geared to the particular vocational experience and plans of the transitioning soldiers, Army civilians, and their family members. Questions have been raised about the cost effectiveness of maintaining the JAC program at locations where the DoL program is also available (the DoL program is not available overseas). Specifically, the added value of the JAC program to transitioning Army personnel and their family members has been questioned by the DoD Inspector General. This evaluation of the JAC was conducted to determine the answer to three basic questions:

1. How do JAC clients compare with non-JAC clients in regard to post-separation employment?
2. Which JAC services have the most impact on success in achieving employment?
3. Considering the additional costs of providing JAC services, are the added benefits derived from the program cost - effective?

Objectives: The objective of this project was to provide ACAP managers with data that reflect the value to the Army and to the civilian sector of the efforts of JAC staff members to prepare individuals to look for jobs outside of DoD. The data will permit ACAP to project program requirements and allocate appropriate resources to meet future needs.

Status: Completed (September 14, 1993-May 31, 1995)

Results: As part of an ACAP-sponsored outcome-based evaluation of JAC, approximately 3,000 servicemembers, Army civilians, and spouses of servicemembers who transitioned between October 1, 1992 and September 30, 1993 participated in Computer-Assisted Telephone Interviews (CATI) late in 1994. They were asked about transition and job search assistance received and post-separation employment and other, less tangible outcomes such as civilian job satisfaction and attitudes toward the military. The primary outcome measures were annual earnings, receipt of unemployment compensation, ratings of preparedness for the job market, civilian job ratings, and ratings of current financial condition relative to pre-separation.

After controlling for individual and military demographics and background factors, participation in job search assistance services such as those offered through JAC was related to subsequent success in the civilian job market. As the number of and satisfaction with services increased, so too did preparedness for the job market, positive regard for the military as a career, earnings, and post-transition job ratings. Given the predilection to favor monetary benefits over less tangible, psychological effects, the finding that earnings increase as a function of the number of job assistance services received at a far greater rate than the cost of providing such services supports the continuance of such programs for exiting military members, their spouses, and Army civilians.

Bibliography:

Sadacca, R., Laurence, J.H., DiFazio, A.S., Rauch, H.J., & Hintze, D.W. (1995). Evaluation of Job Assistance Centers in the Army Career and Alumni Program (ACAP). Alexandria, VA: Human Resources Research Organization.

HumRRO (1993). Final sampling plan. Alexandria, VA: Human Resources Research Organization.

Products:

The Transition Assistance Survey.

Planned Documents and Products:

DO# 0007	Title: Army Tests, Evaluations, and Experimentation with Army Combat Division Structure
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. T. Owen Jacobs DO-ACOR: Dr. Carlos K. Rigby Project Director: Mr. James H. Harris

DO Summary

Problem: The U.S. Army is in a period of transition unmatched by any other period in history. Military history records many examples of "build-up to meet threat/build-down when threat no longer exists." But no where is there any record of a transition period that had to deal with a geo-political situation in which the U.S. constituted the single, dominant global military force with known future requirements across a spectrum of possible conflicts, but with much higher focus on the lower end of the conflict spectrum. The Army's operations doctrine reflects the philosophies and procedures for fighting at the high end of the conventional portion of the war spectrum; however, that doctrine is being revised to reflect the expanded requirement to operate effectively in the new threat environment.

Previous military doctrinal transitions have usually followed a cycle of: threat elimination, downsizing, emergence of new threat, emergence of new doctrine to meet that threat, and development of new military structures to execute the new doctrine in the new operational environment. These steps are not always sequential; when able to anticipate events, the Army can pursue some of these steps in parallel. That is the current case. Efforts toward developing new doctrine began nearly simultaneously with the first downsizing steps, and it seems probable that work toward developing new divisional structures will follow the publication of new operational doctrine, prior to completing downsizing. In that sense, the current downsizing presents an opportunity to restructure the force.

Before presenting restructuring plans, however, a systematic compilation of previous restructuring test, evaluation, and experimentation literature needs to be made. Such a compilation, done systematically and interpreted in light of threats and operational doctrine then-existent, would appreciably aid in the anticipated restructuring work.

Objectives: The objective of this research effort was to locate, collect, catalogue, and abstract the available test, evaluation, and experimentation literature in the arena of military restructuring.

Status: Completed (September 15, 1993-June 15, 1994)

Results: The scope of the initiatives to be considered was determined through interviews with experts on division design. The principal expert was Mr. Robert Keller of Combat Developments, Force Design Directorate, Combined Arms Center at Fort Leavenworth, KS. Based largely on his recommendations, the focus was set on post-Vietnam initiatives in general and the following in particular:

- Division Restructuring Study/Evaluation (DRS/DRE)
- Army 86: Division 86 (Heavy) and Infantry Division (Light)
- High Technology Light Division (HTLD)
- Army of Excellence (AOE): Light Infantry Division (LID) and Heavy Division
- Future Design: Trends and Recommendations

As documents were collected, the pertinence of the Triple Capabilities (TRICAP) study became apparent and it was added to the list.

The initial sources of documents were searches of the Defense Technical Information Center (DTIC) and interviews of design experts. One of the major results of the interviews was a very useful history by Major Glen Hawkins. Most of the documents were ultimately collected from four sites: (1) the Force Design Directorate (FDD), (2) Office of the TRADOC Historian, (3) the Army Development and Employment Agency (ADEA), and (4) the Test and Experimentation Command (TEXCOM) Technical Library.

During the planning phase of the project, one of the authors--General (Retired) Edwin H. Burba, Jr.--outlined insights on the characteristics that define Army organizations. These characteristics were used as a framework in selecting documents for inclusion. The characteristics, along with an example of applying the characteristics to current divisions, are included as an appendix to the final report. Two hundred documents were reviewed.

All the references cited in the report, as well as the summaries prepared, are contained in a separate database system that identifies all references by using relevant subject area terms. A database system called "askSam Systems" was used to compile the bibliographic information.

Bibliography:

Ford, P., Burba, E.H., Jr., & Zugel, R.J. (1994). Review of division structure initiatives. HumRRO Final Report FR-PRD-94-15. Alexandria, VA: Human Resources Research Organization. (ARI Research Product 95-02, October 1994).

Products:

Planned Documents and Products:

DO# 0008	**Title:** 1991 Guard/Reserve Survey of Officers and Enlisted Personnel: File Weighting
Program Area **QR** _____ **AOS** __X__ **MT** _____	**DO-COR:** Dr. Ronald B. Tiggle **DO-ACOR:** Ms. Dianne J. Murphy **Project Director:** Dr. Michael Wilson

DO Summary

Problem: Administration of the 1991 Guard/Reserve Survey of Officers and Enlisted Personnel has provided the Defense Manpower Data Center (DMDC) and the Office of the Assistant Secretary of Defense for Reserve Affairs (OASD(RA)) the only DoD-wide survey examining the attitudes and opinions of National Guard and Reserve component personnel regarding mobilization for Desert Shield/Storm. It is important that drawdown and Force restructuring planning personnel receive the results of this survey as these data provide insight into the effects of mobilization upon members and their families. Delivery of survey results is dependent upon the performance of survey adjustment weighting of survey responses. This project was structured to provide the accomplishment of appropriate survey weighting and the production of reports documenting the production and use of survey adjustment weights.

Objectives: The objective of this project was to provide data and basic reports for policy planning by the full range of DoD offices concerned with military mobilization and its effect upon the families, as well as those concerned with related and general manpower policies.

Status: Completed (September 22, 1993-April 3, 1995)

Results: The primary deliverable from this project was a report summarizing the sampling methodology implemented for the 1991 Guard/Reserve Survey of Officers and Enlisted Personnel, the associated sampling issues, and proposed weighting adjustments to compensate for unequal sample selection probabilities among Reserve members. Activities documented in the report include the computation of sampling base weights, non-response adjustment of base weights, adjustment of survey totals to known population totals (raking), and production of replicate weights.

Bibliography:

Wilson, M.J., (1995). 1991 Guard/Reserve Survey of Officers and Enlisted Personnel: File Weighting. Rockville, MD: Westat, Inc.

Products:

Planned Documents and Products:

DO# 0009	Title: Sampling Plan for the 1994 Health Care Survey of DoD Beneficiaries
Program Area QR _____ AOS __X__ MT _____	**DO-COR:** Dr. Ronald B. Tiggle **DO-ACOR:** Dr. Tanya Guthrie **Project Director:** Dr. David Morganstein

DO Summary

Problem: The Department of Defense is mandated by Congress to conduct an annual survey to evaluate its health care services. The overall purpose of the survey is to measure satisfaction in the range of competing health care services, general health status, and use of health care. There is interest in overall measures of satisfaction across the populations of active duty service members, dependents of active duty service members, retirees, and survivors, as well as interest in measures within particular catchment areas which can be used by individual military hospitals for quality assessment.

The sampling frame for the study was based on the Defense Enrollment Eligibility Reporting System (DEERS) file. The information in this complete and extensive frame can be used to generate highly efficient sampling designs. This file does change over time as the status of individuals changes and new persons enter in. Thus, this sample is a 'snapshot' of the population at one particular point in time.

Objectives: The objective of this effort was to produce several sampling designs for the Survey of Beneficiaries study and to draft the supporting statement for the request for OMB approval of the data collection for dependents and survivors of retirees.

Status: Completed (September 28, 1993-January 24, 1994)

Results: The primary deliverables from the project were an analysis of alternative designs including EXCEL software which could be used to determine the most optimal sample design given a known set of inputs and desired design properties. Given a selected sampling plan with options chosen for a stratification system and a fully independent or partially dependent strata sampling plan, sample sizes were selected for the stratum. This was done using EXCEL spreadsheets. The spreadsheets provide base weights, which then need to be adjusted for nonresponse after the sample is collected.

Bibliography:

Chu, A. & Flores, I. (1994). Sampling plan for the 1994 health care survey of DoD beneficiaries. Rockville, MD: Westat, Inc.

Products:

Planned Documents and Products:

DO# 0010	**Title:** Economic and Occupational Analyses of 1992 DoD Reserve Surveys
Program Area **QR** _____ **AOS** __X__ **MT** _____	**DO-COR:** Dr. Ronald B. Tiggle **DO-ACOR:** Dr. Jack Edwards **Project Director:** Dr. Shelley Perry

DO Summary

Problem: The 1992 Reserve Components DoD Survey of Officers and Enlisted Personnel and Their Spouses is part of a multi-year effort to collect important attitude and opinion data from men and women in each of the seven reserve components and all of their spouses. The results of this survey effort are used by the Office of the Secretary of Defense and each of the military services, including the Army Guard and Reserve, to formulate policies affecting the reserve force and their families. In addition to attitude and opinion data, this survey is an important and unique data source for civilian occupational information on the reservist. However, the data are provided on the survey in open-ended format and must be converted to the standard industry and occupational codes so they may be compared to other populations.

Objectives: The objective of this delivery order is to provide data and basic reports for policy planning by the full range of DoD offices concerned with military families, as well as those staff agencies concerned with related and general manpower policies. To address this need, the contractor will conduct two primary tasks: (1) specialized coding of reservists' civilian labor experience, and (2) targeted analysis of the 1992 Reserve Component Surveys in several content areas.

Status: Ongoing (September 28, 1993-July 31, 1997)

Results: A study report was prepared addressing Reserve Component members' financial issues. Reservists' pay and military benefits and their satisfaction with both were described. Major areas of financial expenditures, specifically, housing and health and dental care, were also described. Financial issues were examined in relation to Reservists' retention propensities.

A section of the 1992 Reserve Components Surveys of Officers and Enlisted Members contained survey items requesting respondents' civilian occupation and industry. Open-ended responses to these items were coded to Census categories and a data tape and diskette prepared and delivered. These data were also included in a second study report on the military and civilian occupations of Reservists. In addition to a description of Reservists' civilian occupations and industries, Reservists' primary and duty military occupations were described and compared with the amount of time spent performing Reserve work in these occupations. Specific Reserve training activities and work demands were detailed and considered in relation to civilian job demands.

Bibliography:

Miskura, S., Mackin, P., Lockman, R., Perry, S., &Weltin, M. (1997). 1992 Reserve Components Surveys of Officers and Enlisted Personnel and Their Spouses: Special Topic Report on Financial Issues of Reserve Service. Rockville, MD: Westat, Inc.

Rauch, J., Perry, S., Nieva, V., Shen, T., & Helmick, J. (1997). 1992 Reserve Components Surveys of Officers and Enlisted Personnel and Their Spouses: Special Topic Report on Military and Civilian Occupations of Reservists. (Vols. 1 and 2). Rockville, MD: Westat, Inc.

Westat, SAG Corporation, & Defense Manpower Data Center (1997). 1992 Reserve Components Surveys of Officers and Enlisted Personnel and Their Spouses: Final Study Report. Rockville, MD: Westat, Inc.

Products:

Planned Documents and Products:

DO# 0011	**Title:** Methods for the Evaluation of C2 Systems
Program Area **QR** X **AOS** _____ **MT** _____	**DO-COR:** Dr. Sharon L. Riedel **DO-ACOR:** Mr. Robert S. Solick **Project Director:** Mr. Gene Jones

DO Summary

Problem: The challenges for successful wartime performance, and even the prevention of war, require careful examination of the human element in planning, decision making, and C2 systems. The ARI Fort Leavenworth Field Unit has been engaged in research on the behavioral aspects of corps through battalion-level C2 and is a key participant and contributor to the Battle Command Integration Program (BCIP). A primary role of ARI is to look at future C2 requirements, from the human perspective, by identifying and assessing better procedures, system capabilities, and training requirements. BCIP activities frequently seek research support on the behavioral aspects of C2 requirements, including development and assessment of user interface prototypes, requirements definition, and assessments of C2 system prototypes during development. In order to fulfill the requests to assess human performance in automated C2 systems, ARI is engaged in research to develop improved methods for assessment of C2 systems during development.

Objectives: The objectives of this effort were to support the validation of methods for life cycle evaluation of knowledge-based C2 systems and to document the "lessons learned" from conducting evaluations of the AirLand Battle Management (ALBM) Advanced Technology Demonstration (ATD) prototype.

Status: Completed (November 13, 1993-March 11, 1994)

Results: The following are lessons learned during the conduct of knowledge base and interface evaluations of an expert system under development for the Army.

Knowledge Base Evaluations. The development of an expert system based decision aid required the design and creation of a large collection of facts, algorithms, rules, and interfaces into an entity referred to as the Knowledge Base. Completed over time by interviewing experienced personnel and researching available reference material, the developer produced prototype software. At the direction of the Battle Command Battle Laboratory, an independent systematic review of the Knowledge Base was conducted to validate the underlying rules in order to provide feedback to the developers. This process involved learning the system in great detail and then presenting the entire process to a new group of experts to insure that the design and the products of the aid were valid. The experts were exposed to a detailed presentation of the workings of the decision aid and were queried on their reactions to both the process and the product in deliberate evaluation sessions. As a result of these evaluations, significant feedback was generated and provided to the developer with positive recommendations to correct perceived deficiencies. The following issues were raised: (1) problems encountered in becoming experienced with the system; (2) the impact of software development and its current status on conducting evaluations; (3) the solicitation and use of subject matter experts; (4) the design and conduct of the Knowledge Base Evaluation; (5) presenting the findings of the evaluation; and (6) general comments.

Soldier-Machine Interface (SMI). An important part of expert system development is the design of the SMI. A poorly designed interface decreases productivity, increases errors, increases confusion and boredom, increases cost and development time, and may even lead to users' refusing to use the system at all. The following lessons were learned from the SMI assessment: (1) inadequate documentation made learning the system difficult; (2) software development and its current status made learning the system difficult; (3) interface problems were identified after the interface design was implemented; (4) human factors input was not integrated into system development, resulting in a system that was poorly designed; (5) the state of software development and lack of interface design standards affected the SMI assessment; and (6) the assessment results should be conveyed in a constructive manner to ensure that deficiencies are corrected.

Bibliography:

Flanagan, J.P. & Rappold, V. (1994). Lessons learned from the knowledge based and soldier-machine interface evaluations. Final Research Report. Falls Church, VA: CAE-Link Corporation.

Products:

Planned Documents and Products:

DO# 0012	Title: Improving Family Adaptation to the Stresses of Family Life
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. D. Bruce Bell DO-ACOR: Project Director: Dr. Dennis K. Orthner

DO Summary

Problem: Research on the ability of families to cope with the stresses of Army life has demonstrated that there are two types of adaptation: (1) adaptation to the marriage (called internal adaptation) and (2) family adaptation to Army events (called external adaptation). High internal adaption is characterized by soldiers (and their spouses) who say they are happily married, have good marital communication, and that the family is coping well. High external adaptation is characterized by soldiers (and their spouses) saying that they are satisfied with Army life, agree with Army values, and that they, as a couple, support making the Army a career. Analysis of data from both soldiers and their spouses show that these two dimensions exist. In fact, this same pattern had been found in male soldiers married to civilian females, female soldiers married to male civilians, and in dual military couples. The importance of these findings for the Army is that they can be used to guide the development and modification of family programs.

Soldier ratings of internal adaptation are related to soldier ratings of work stress whereas soldier ratings of external adaptation is more related to soldier morale and willingness to remain in service. Research has shown that the most potent method of increasing external adaptation is by increasing the perceived level of support for families within the soldier's unit. Also, research has shown the Army already has some innovative family support programs functioning at the unit level which should have a positive impact upon not only family functioning, in general, but also the levels of family violence/abuse in particular. Research has also shown how proper marketing and service integration can improve all family services whether they are delivered at the unit level or within a family services center.

The purpose of this effort was to see if a pilot program could be designed which would enable the Army Community Service (ACS) agency to focus more resources on external family adaptation through unit based programs. A second purpose was to gather the information necessary to test the effects of such unit based programs on family functioning, in general, and upon levels of family stress and social isolation which are associated with rates of family violence and abuse.

Objectives: The effort had four objectives: (1) design a pilot program that can be used by ACS center personnel to increase the adaptation of families to the stresses of Army life; (2) teach the ACS professionals how to use it; (3) evaluate whether the program is being used; and (4) collect baseline data which can be used in a subsequent effort to test program effectiveness. An area of particular interest here was how these proposed changes would affect levels of family violence and neglect.

Status: Completed (December 22, 1993-December 21, 1994)

Results: Lessons learned about the ACS unit program from the pilot tests were as follows: (1) the role of the unit services coordinator (USC) needs to be clearly stated and discussed; (2) the ACS director and the USCs must be clear about what the unit program can and cannot do for the unit; (3) spending a great deal of time in the unit is not necessary; (4) there are management difficulties when trying to establish a mini-ACS out in the unit; (5) the unit program changes how Commanders think of ACS; and (6) soldiers and families have an increased awareness and understanding of ACS. Lessons learned about cross-training from the pilots included: (1) the unit program manual should be used to identify key cross-training points; (2) training on the USC role and its responsibilities needs to be done prior to cross-training; (3) ACS staff are often surprised about how much there is to know about the various programs; (4) being well-informed about ACS helps in gaining the confidence of the unit; (5) training and cross-training must be ongoing; and (6) some cross-training should also be given to ACS staff who are not in the USC roles. Lessons learned about unit orientation from the pilots: (1) talking Army language is key to building confidence in the units; (2) mission support means understanding their mission; (3) time spent in unit orientation is valued by ACS staff; and (4) ACS Directors often overestimate staff knowledge of the Army system. Lessons learned about team-building from the pilots: (1) teamwork is improved when time is set aside for USCs to share their experiences with one another; (2) teamwork helps reduce the stress of added job responsibilities; (3) an effective referral system requires teamwork; (4) failing to consider how problems will be solved as the Unit Program is established works against ACS staff morale; and (5) being informed about the unit and its mission is important for gaining unit confidence. Lessons learned about monitoring from the pilots included the findings that staff review of forms increases acceptance, forms should be kept simple, and referrals and unit services must be tracked. Key implementation lessons learned from the pilots: (1) involve all ACS staff in planning; (2) get senior leadership support; (3) take time to prepare; (4) know your units; (5) phase-in unit consultation; and (6) meet regularly to share experiences.

Bibliography:

Orthner, D.K., Bowen, G.L., Mancini, J.A., Pond, S.B., & Stawarski, C.A. (1994). Army Community Service: ACS Unit Program Early Implementation Report. Alexandria, VA: Human Resources Research Organization.

Products:

Improving Family Adaptation to the Stresses of Army Life: Revised Program Training Manual.

Planned Documents and Products:

DO# 0013	**Title:** Support for Review of Army Occupational Survey Program
Program Area **QR** ___X___ **AOS** _____ **MT** _____	**DO-COR:** Dr. Michael G. Rumsey **DO-ACOR:** **Project Director:** LTG (R) John S. Crosby

DO Summary

Problem: The Army Occupational Survey Program (AOSP) "is a system of collection and computer-assisted processing, storage, retrieval, and analysis of detailed training and occupational information. This information is used for officer and enlisted specialties and military occupational specialties and is collected by administering questionnaires to specialty or MOS job incumbents and supervisors or subject matter experts throughout the world" (Army Regulation 611-3, p.1-1).

"The AOSP is designed to support and evaluate Army programs in the following areas:

(1) classification
(2) specialty or MOS development and modification
(3) quality training requirements
(4) assignment policies and use of personnel
(5) evaluation tests or systems
(6) personnel retention" (Army Regulation 611-3, p.1-1).

Objectives: The objective of this work was to provide ARI with information and suggestions that it could use as a basis for developing recommendations regarding the most appropriate organization, missions, and functions of the AOSP.

Status: Completed (January 7, 1994-July 6, 1994)

Results: Information was collected primarily from interviews with over fifty senior AOSP-related leaders, users, program managers, and administrators. Five options were evaluated: (1) eliminate the AOSP, (2) retain the AOSP, improving its management and execution using technology, (3) retain the AOSP, downsizing the current organization and contracting out some functions, (4) reorganize and resource program to meet needs of all Personnel Life Cycle functional areas, and (5) move toward a joint program with the Air Force. Based on the information collected, it was concluded that the products of AOSP have great potential utility, beginning with the training function, where most of the current program effort is focused. To realize the full potential of the program, however, will require a radical change to the current program and innovative use of technology to enhance program delivery and utilization of results.

Bibliography:

Crosby, J.S., & Faber, M.R. (1994). Review of the Army Occupational Survey Program. Alexandria, VA: Crosby International Inc.

Products:

Planned Documents and Products:

DO# 0014	Title: FY 1993 Population Representation in the Military Services Report (POPREP93)
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. Ronald B. Tiggle DO-ACOR: Major Dana Lindsley Project Director: Ms. Monica Gribben

DO Summary

Problem: Each year, the Office of the Assistant Secretary of Defense (Personnel & Readiness) [OASD/P&R] publishes a congressionally-mandated report, Population Representation in the Military Services (POPREP). The POPREP provides detailed data on enlisted and officer recruiting and retention. These data include demographic, educational, aptitude, and socioeconomic characteristics of applicants, new recruits, and enlisted and officer members of the Active and Reserve Components.

The POPREP is distributed to a diverse audience within the Department of Defense and the Executive and Legislative branches (including members of the Congress, high-level DoD policymakers, the Services, and the military manpower community) as well as military manpower researchers. Prominent uses of the data are: A source of information to members/committees of Congress; a foundation for addressing congressional committee actions; a basis for budget/legislative changes; a resource for Service research communities and the general public; and an element for military readiness estimates.

The intended audiences need the report to locate specific population representation information such as marital status by Service, by gender, and by age. Readers also use the report to find clearly stated analyses of military manpower and personnel issues with supporting data as documentation of the analyses.

Objectives: The objectives of this effort were to (1) assist in meeting the requirements for collecting, analyzing, and presenting information on characteristics of the enlisted and officer forces; and (2) develop, produce, and distribute the FY 1993 report on Population Representation in the Military Services.

Status: Completed (February 25, 1994-January 31, 1995)

Results: The primary deliverable from the project was a complete analysis of FY 1993 POPREP data, including Active enlisted applicants, accessions, and members; Active officer accessions and officer corps; Reserve enlisted accessions and members; and Reserve officer accessions and officer corps. To provide analyses of trends in the military and comparable civilian populations, the report contains longitudinal data for selected demographic variables.

Bibliography:

Population Representation in the Military Services, Fiscal Year 1993 (November 1994). Washington DC: Office of the Assistant Secretary of Defense (Force Management Policy).

Products:

Planned Documents and Products:

DO# 0015	Title: Revision of the Army Career Transition Survey (ACTS)
Program Area QR _____ AOS __X__ MT _____	DO-COR: Dr. Ronald B. Tiggle DO-ACOR: Project Director: Dr. Janice Laurence

DO Summary

Problem: ARI developed an exit survey instrument, the Army Career Transitions Survey (ACTS), which is designed to be administered to soldiers who are separating from the Army. In a recent evaluation of the ACTS, Giacalone[1] (1993) raised a number of concerns about the content of the ACTS and the procedures currently being used to administer the survey. Questions about the usefulness to sponsoring organizations within the Army of the data collected were also raised by Giacalone as were issues concerning the representativeness of the survey respondents.

The Office of the Deputy Chief of Staff of Personnel (ODCSPER, HRD) subsequently asked ARI to revise the ACTS to insure that it addresses the specific areas of interest to Army planners and policy makers. To accomplish this task, the appropriate Army Commands were interviewed to identify the topics of interests, the items on the current version were reviewed and revised, and standardized administrative procedures were developed for all administration sites.

Objectives: The objective of this project was to provide the Army with a revised exit survey that contains items that address the most important issues of interest to the Army. In addition, to help insure data consistency, completeness, and usefulness, administration procedures for ACTS were revised.

This effort was designed to provide retention planners with better information about the reasons that made soldiers think about leaving the Army, and will provide improvements in the methods of monitoring trends and cycles. It was intended to provide recruiting and marketing planners with enhanced indicators of the advice returning veterans are giving the Army's youth market.

Status: Completed (April 6, 1994-October 31, 1995)

Results: A revised ACTS was submitted for distribution by ARI.

Bibliography:

Giacalone, R. A., Naughton, J.A., Laurence, J.H. & DiFazio, A.S. (1995, October). Revision of the Army Career Transitions Survey (ACTS). (HumRRO FR-WATSD-95-06). Alexandria, VA: Human Resources Research Organization.

Giacalone, R.A., & Naughton, J.A. (1995, September). Recommendations for administration of the Army Career Transitions Survey. (HumRRO FR-WATSD-95-07). Alexandria, VA: Human Resources Research Organization.

Products: ACTS User's Manual and Codebook

Planned Documents and Products:

[1] Giacalone, Robert A. (1993). A critical evaluation of the Army career transitions survey: A suggested approach for reformulation. Alexandria, VA: U.S. Army Research Institute.

DO# 0016	Title: Update of U.S. Army Research Institute's Officer and Enlisted Personnel Research Data Bases for 1993 and 1994
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. Peter M. Greenston DO-ACOR: Project Director: Ms. Lori Ramsey

DO Summary

Problem: ARI requires periodic updates to a group of data bases that are used to perform policy and behavioral research and analyses of manpower and personnel issues. These data bases are constructed primarily of annual personnel and training data maintained by various offices within the U.S. Army and the Defense Manpower Data Center (DMDC). In order to satisfy these research requirements, it is necessary to add current data to the Officer Administrative Data Base (OADB), the Officer Longitudinal Research Data Base (OLRDB), the Officer Standardized Educational Testing Data Base (OSETDB), and the Enlisted Panel Research Data Base (EPRDB).

Objectives: The objective of this effort was to collect source data files and to update the OADB, the OLRDB, the OSETB, and the EPRDB. The procedures used conform to those described in the existing data base documentation.

Status: Completed (April 8, 1994-June 6, 1995)

Results: The primary deliverables for this project were the 1993-1994 officer and enlisted data bases containing career history data on U.S. Army personnel. The data bases were created in Statistical Analysis System (SAS) and flat file formats. Officer Master File (OMF), Separation Officer Master File (SOMF), and Voluntary Separation Incentive Special Separation Benefit (VSI/SSB) data for 1993 and 1994 were incorporated into the Officer Longitudinal Research Data Base (OLRDB) and into the Officer Administrative Data Base (OADB); OLRDB Core data were added to the Officer Standardized Educational Testing Data Base (OSETDB); and enlisted master/loss accession, composite, Enlisted Master File (EMF), and VSI/SSB data were included in the Enlisted Panel Research Data Base (EPRDB).

Bibliography:

Ramsey, L.J., & Fertig, K.L. (1995). Update of the U.S. Army Research Institute's Officer Research Data Bases for 1993 and 1994. Study Report 94-9. Arlington, VA: Fu Associates, Ltd.

Ramsey, L.J., & Fertig, K.L. (1995). Update of the U.S. Army Research Institute's Enlisted Panel Research Data Base for 1993 and 1994. Study Report 94-9. Arlington, VA: Fu Associates, Ltd.

Products:

Planned Documents and Products:

DO# 0017	**Title:** Preparing a Book on Computerized Adaptive Testing Version of the Armed Services Vocational Aptitude Battery (CAT-ASVAB)
Program Area **QR** __X__ **AOS** _____ **MT** _____	**DO-COR:** Dr. Ronald Tiggle, ARI, 703/617-8293 **DO-ACOR:** Dr. Jane Arabian, DoD, 703/795-5525 **Project Director:** Dr. James R. McBride

DO Summary

Problem: The CAT-ASVAB program began in 1979, and bore operational fruit in 1992, when CAT-ASVAB went into use in an operational test and evaluation. CAT-ASVAB has since replaced conventional, printed versions of ASVAB in Military Entrance Processing Stations (MEPSs). DoD was at the forefront of research and development into computerized adaptive testing (CAT) for over 20 years. Efforts by the Military Service laboratories (both in-house and contractor), the Defense Manpower Data Center, and other research agencies had not been comprehensively documented in the research literature. The Defense Advisory Committee on Military Personnel Testing (DAC) had strongly urged DoD to provide such technical documentation.

Objectives: The objective of this project was to complete an edited book to document the past 20 years of CAT research. The book was prepared for commercial publication. The principal objective of this book was to document the psychometric research and development of the CAT-ASVAB program and the important practical lessons learned in developing its delivery system. The approach did this in a historical context. A secondary objective of the book was to provide a case study of the entire CAT-ASVAB program.

Status: Completed (18 April 1994 - 31 October 1996)

Results: The book primarily addresses three aspects of CAT-ASVAB history in DoD (adaptive testing methods and strategies; CAT-ASVAB system design issues; and CAT-ASVAB evaluation). It provides reference information useful to practitioners developing any computerized testing system. Publication of the book by the American Psychological Association (APA) occurred in Fall 1997. A copy of the published book was sent to ARI.

Bibliography:

Sands, W.A., Waters, B.K., & McBride, J.R. (1997). Computerized adaptive testing: From inquiry to operation. Washington, DC: American Psychological Association.

Products:

Planned Documents and Products:

DO# 0018	Title: Exploring Human Dimensions of Battle Command
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. Stanley M. Halpin DO-ACOR: Project Director: Dr. Joan Markessini

DO Summary

Problem: The Army and the TRADOC Battle Command Battle Laboratory (BCBL) wanted to sponsor a workshop on the human dimension of battle command. It was to include participants from not only TRADOC, but also from the Army War College (AWC) and the United States Military Academy (USMA). The workshop was to address the range of U.S. Army training and education in the area of battle command. The workshop was also to consider the implications of battle command for research and research planning.

Objectives: The principal purpose of this project was to assist ARI, BCBL, and TRADOC in formulating the implications of battle command for training and education, research, and research planning.

Status: Completed (May 3, 1994-December 30, 1994)

Results: A workshop conference was conducted and the results were forwarded to TRADOC, the Army War College, and West Point for comments. The results were summarized in a report of the conference proceedings and a series of four position papers.

Bibliography:

Halpin, S.M. (Editor) (1994). Force XXI Battle Command Conference: Proceedings. Falls Church, VA: CAE-Link.

Products: Four position papers:

1. A comprehensive model for military leadership
2. Cognitive issues for battle command
3. Development for battle command: Developmental approaches and instructional interventions
4. Cognitive capabilities for battle command: Developmental approaches and instructional interventions

Planned Documents and Products:

DO# 0019	Title: Promotion and Professional Development in a Smaller, CONUS-based Army (Phase 1)
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. Abraham Nelson DO-ACOR: LTC John Swenson Project Director: Dr. D. A. Harris

DO Summary

Problem: The Army is in a period of transition unmatched by any other period in history. Military history records many examples of "build-up to meet threat/build-down when threat no longer exists." The particular concern of this study is the viability of the enlisted promotion and professional development systems in the smaller, CONUS-based Army of the 1990's. These two systems are supported by PCS (permanent change of station) operations and policy. The movement to a smaller, CONUS-based Army will reduce PCS moves. This reduction in PCS may adversely affect both professional development and promotion opportunities.

Objectives: This was Phase 1 of a two phase study effort. The objectives of this study effort were to: (1) discern the impact of a smaller, primarily CONUS-based force on professional development (PD) and promotion opportunities, (2) document policy changes required to sustain PD and promotion opportunities at current rates, and (3) evaluate the effectiveness and efficiency of current promotion and professional development systems.

Status: Completed (May 13, 1994-January 12, 1995)

Results: A model was developed to study the impact of the European drawdown on PCS moves. The model operationalized the mathematical structure defined in the Interim Study Report entitled "A Mathematical Model for Analyzing the Effect of Changes in the Authorized Position Structure on Army Personnel Policies." The model will be used to complete the analyses in Phase 2 of this project.

Bibliography:

Professional Development in a Smaller, Conus-Based Army (Phase I). Human Resources Research Organization (HumRRO).

Products: iThink Alternative PCS Rotation Model

Planned Documents and Products:

DO# 0020	**Title:** Development of Measures for Sinai Peacekeeping
Program Area **QR** _____ **AOS** _____ **MT** __X__	**DO-COR:** Dr. Michael G. Rumsey **DO-ACOR:** Dr. Dale Palmer **Project Director:** Dr. Douglas H. Reynolds

DO Summary

Problem: This project was undertaken at the request of the Chief of Staff of the Army in conjunction with the planned use of members of the Army National Guard and the United States Army Reserve in Sinai peacekeeping operations. Optimal means for selecting candidates for this mission from among those who volunteer were being examined.

Objectives: The objective of this work was to develop measures of individual peacekeeping performance in the Sinai.

Status: Completed (May 26, 1994-September 25, 1995)

Results: Behaviorally-based rating scales and job knowledge tests have been developed and used as performance criteria to evaluate selection measures developed at the U.S. Army Research Institute (ARI). Task and knowledge requirement dimensions to support the job knowledge test were derived from a review of MFO training and doctrine materials. These dimensions were revised and refined through a series of workshops with NCOs previously deployed in the Sinai. Ten peacekeeper dimensions resulted from this effort and form the basis for a set of behaviorally-based performance rating scales. These measures were administered in the Sinai in May, 1995, and a set a scores were developed against which the predictor tests may be validated.

Bibliography:

Reynolds, D.H., & Campbell, R.C. (1995). Development of measures for SINAI peacekeeping performance - Final study report (HumRRO Final Report FR-EADD-95-09). Alexandria, VA: Human Resources Research Organization.

Reynolds, D.H., Campbell, R.C., Palmer, D.R., & Rumsey, M.G. (1995). Defining the Dimensions of Peacekeeper Performance. In Selecting warriors to be peacekeepers (Z. Simutis, Chair), symposium presented at the annual meeting of the American Psychological Association, New York.

Reynolds, D.H., Mael, F.A., & Campbell, R.C. (1995). Job Requirements for Sinai Peacekeepers. In The role of the peacekeepers: Military and peace psychologists' perspectives (R. Wagner, Chair), symposium presented at the annual meeting of the American Psychological Association, New York.

Products:

Job Knowledge Test for Sinai Peacekeepers
Rating Scales for Sinai Peacekeepers
Database of criterion data

Planned Documents and Products:

DO# 0021	Title: Longitudinal Research on Officer Careers (LROC)
Program Area QR _____ AOS __X__ MT _____	DO-COR: Dr. Guy Siebold DO-ACOR: Project Director: Dr. Rodney A. McCloy

DO Summary

Problem: The U.S. Army Research Institute (ARI) initiated a program of research on officer careers and career decision-making. As part of the program, ARI developed survey instruments and a longitudinal database on junior Army officers under the title "Longitudinal Research on Officer Careers (LROC)". It was decided to transition LROC into an operational effort so that it could respond more directly to the operational needs of the personnel and leadership communities.

Objectives: The purpose of this effort was to assist in transitioning the LROC survey project from a research to an operations environment by (a) assessing the needs of those working in the relevant personnel and leadership operational areas, (b) showing them how analyses of existing LROC data might be carried out to address those needs, and (c) recommending how the LROC survey might best be designed and used as an operational tool.

Status: Completed (June 28, 1994-July 31, 1995)

Results: Issues of greatest interest to the interviewed members of the personnel and leadership communities included the following: What impact will the drawdown, the concomitant erosion of benefits, and newfound uncertainties regarding career goals have on officer retention? What motivates officers? Do they know the path/paths to success? Who is likely to cut an Army career short, and why? How and when does commitment to the Army evolve? A key finding was that reports from an operational LROC should be user- and policy-friendly—that is, short (2-5 pages), attractively designed, and issue- or topic-focused.

Analyses of the LROC found that 10 sets of LROC survey items were psychometrically acceptable as composites (or scales). An analysis of interindividual change examined whether profiles of scores on the LROC composites over time varied across officers, and if so, whether certain individual characteristics might account for this variation. All composites evidenced significant variation in officer profiles over time. Individual characteristics occasionally helped explain profile mean-level differences but not profile shape. A cluster analysis was also conducted but provided little additional information. Also, an event history analysis was used to address officer retention during the first four years of service. Four models were examined. Three LROC composites and demographic variable were identified as significant predictors of officer retention: (1) Retention Propensity, (2) Characteristics of the Job (a composite comparing military and civilian jobs on such conditions as pay and retirement benefits), (3) Civilian Market Ease of Entry (the perceived ease with which an officer could transition into the civilian job market), and (4) ROTC non-scholarship status (despite higher levels of retention propensity, these officers were more likely to leave than either the ROTC scholarship or USMA commissions, a finding that is likely confounded with service obligation).

Regarding design changes for future LROC surveys, key recommendations included (a) eliminating the economic sections of the survey (especially where the data are already available through other means), (b) sending out the periodic survey as often as funding permits, (c) integrating the survey effort more closely with other surveys or data collection programs, (d) designing the survey to include both longitudinal and "special topics" components, and (e) disseminating the results in brief, focused, user-friendly reports.

Bibliography:

McCloy, R.A., Laurence, J.H., & DiFazio, A.S. (1995). Monitoring the attitudes and perceptions of junior officers: The Longitudinal Research on Officer Careers (LROC) survey. Alexandria, VA: Human Resources Research Organization.

Byrnes, R.M., & Hoover, E.C. (1995). Longitudinal Research on Officer Careers (LROC). Draft report prepared for the U.S. Army Research Institute.

Products: Sample "Special Topics" report.

Planned Documents and Products:

DO# 0022	Title: Impact of Battalion Peacekeeping Requirements on the Sponsoring Army National Guard Division
Program Area QR _____ AOS _____ MT __X__	DO-COR: Dr. Joseph Hagman DO-ACOR: Project Director: Mr. Gene Jones

DO Summary

Problem: The ARI Field Unit at Boise, Idaho, is currently engaged in research on the personnel, training, and family support issues affecting the deployment of a battalion-sized unit composed of both Active Component (AC) and Reserve Component (RC) units for a peacekeeping mission in the Sinai desert. Historically, this battalion has been drawn from the 82nd and 101st Airborne Divisions. However, now the battalion will consist of 400 volunteers from the 29th Infantry Division (ID) (Light), Army National Guard (ARNG), 113 AC soldiers, and 41 U.S. Army Reserve (USAR) soldiers (primarily Individual Ready Reserve (IRR) volunteers from around the nation).

Objectives: The objectives of this effort were to identify and document the personnel and training impact of peacekeeping battalion requirements on the ARNG's 29th ID during and after its period of peacekeeping mission sponsorship.

Status: Completed (June 28, 1994-June 27, 1996)

Results: Senior leaders from the Division were surveyed and interviewed to determine what training and personnel impacts were experienced. A stratified random sample of junior leaders/soldiers from these units was also surveyed, as well as active army readiness advisors and soldiers. All surveyed groups endorsed the idea of ARNG participation in active duty assignments such as the PK mission. Although Senior leaders initially expected negative impact on training and combat readiness, over time Senior leaders opinion shifted more positively. Negative judgment seem to be in proportion to troop losses to the PK mission. Soldiers and leaders criticized the manner of recruitment, advance notice and feedback on the selection process. The participation in the PK mission was a morale builder and continued participation in similar missions is desired. Close attention should be paid to improving the recruitment process. Also, personnel losses to individual units should be closely monitored for impact on combat readiness.

Bibliography:

Smith, M.D. (1996). Impact of battalion-level peacekeeping requirements on the sponsoring Army National Guard Division, (HumRRO FR-EADD-96-24). Alexandria, VA: Human Resources Research Organization.

Products:

Planned Documents and Products:

DO# 0023	Title: Identifying the Attrition Problem and Its Solutions
Program Area QR ___X___ AOS _____ MT _____	DO-COR: Dr. Clint Walker DO-ACOR: Project Director: Dr. Janice Laurence

DO Summary

Problem: After decades of research on the "attrition problem" and numerous ad hoc remedies, Army management still experiences problems with attrition. It has also been evident that some attrition has a positive impact on the Army. Thus there exists the need to generate a generally accepted conceptualization of the "attrition problem" and a coordinated set of remedies that could be responsive to changes in the external environment.

Objectives: The objective of this effort was to prepare a report critically reviewing the literature on the subject of enlisted attrition from the Army. The review was intended to identify, insofar as possible, what the "attrition problem" is and what information is lacking to identify the nature and extent of the problem.

Status: Completed (July 29, 1994-November 28, 1994)

Results: The literature review suggested that the best bets toward solving the attrition problem are to (a) determine the extent of management/policy control at various levels and set guidelines that are appropriate; and (b) enhance the match between the individual and the organization through classification based on biodata/temperament as well as realistic previews of the job, the environment, and the behavior. Finally, concern over attrition by outside parties (e.g., Congress) is not likely to subside. The Army would be in a better position to answer continuing concerns if the causes and codes were tracked by personal characteristics and their interactions were understood. The Army could then account for and explain attrition levels and tradeoffs between attrition and other personnel policies.

Bibliography:

Laurence, J.H., Naughton, J.A., & Harris, D.A. (1995). Attrition Revisited: Identifying the Problem and Its Solutions. Alexandria, VA: Human Resources Research Organization.

Products:

Planned Documents and Products:

DO# 0024	Title: Modeling the Enlistment Decision with Army Communication Objectives Measurement Systems Data
Program Area QR ___X___ AOS _____ MT _____	DO-COR: Dr. Paul Gade DO-ACOR: Project Director: Dr. Veronica Nieva

DO Summary

Problem: Within the context of today's downsizing military, interest in the recruiting market remains high. Over two hundred thousand incoming recruits are still needed to fulfill the military's annual active duty mission. Recently there has been concern that the pool of young people interested in joining the military may be shrinking. Anecdotal reports from recruiters indicate increasing difficulty in meeting mission. Annual surveys and recent studies have shown that the level of enlistment propensity among 16 to 24 year old youth has been declining steadily over the past few years. This study was one of several efforts undertaken to attempt to obtain a better understanding of the forces that affect enlistment propensity.

Objectives: The objective of this project was to develop several empirically derived models of enlistment interest and actual behavior using data from a survey conducted in 1987 of a nationally representative sample of young men and their parents called the "Army Communications Objectives Measurement System (ACOMS)." The utility of the Fishbein and Ajzen theories of reasoned action within the context of military recruiting as proposed in the original ACOMS project was also tested.

Status: Completed (July 29, 1994-August 31, 1995)

Results: Four empirical models were developed on Army and military enlistment: a youth model of Army enlistment, a linked youth and parent model of Army enlistment, a youth model of military enlistment, and a combined youth and parent model of military enlistment. The models were developed in several stages, starting from a conceptual model that applied the Fishbein and Ajzen concepts to enlistment intentions and behaviors, through an exploratory analysis of the variables available in the ACOMS survey instrument, to a model building effort that employed structural covariance modeling techniques. In general, these models provide strong support for the general framework presented by the theory of reasoned action and for the survey measures that had been developed for ACOMS to measure variables suggested by the theory, that is, youth attitudes are strongly predictive of youth enlistment intentions and behaviors. Additional findings were (a) strong support for the role of social influence, in particular parental influence, in the enlistment process, and (b) strong predictive relationships between measures of enlistment intentions and actual enlistment behaviors.

Bibliography:

Nieva, V.F., Wilson, M.J., Norris, D.G., Greenlees, J.B., Laurence, J.H., & McCloy, R.A. (1995). Modeling the enlistment decision with Army Communications Objectives Measurement Systems (ACOMS) data. Alexandria, VA: Human Resources Research Organization.

Products:

Planned Documents and Products:

DO# 0025	Title: Research Findings on Soldier Selection and Their Implications for Army Policy and Programs
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. Clint Walker DO-ACOR: Dr. Michael G. Rumsey Project Director: Dr. Deirdre Knapp

DO Summary

Problem: Considerable research on the selection and classification of enlisted personnel has been conducted and documented in numerous technical reports. A continuing problem for ARI researchers is to assure that relevant research findings are communicated to non-technical Army audiences.

Objectives: The objective of this effort was to develop a report that reviews what research discloses about soldier selection and classification that can be used by Army leaders, program managers, and policy makers to address Army needs.

Status: Completed (July 29, 1994-February 14, 1996)

Results: It was decided that two reports would be produced to better serve ARI's needs. One was an 84-page document that provides considerable historical information and information about a relatively large number of related projects. The other was a shorter, 45-page document that focuses more exclusively on results of the Project A/Building the Career Force research program and closely related projects.

Bibliography:

Zook, L.M. (1996). Research findings on soldier selection and their implications for Army policy and programs: Soldier Selection: Building America's Army. Alexandria, VA: Human Resources Research Organization.

Zook, L.M. (1996). Soldier Selection: Past, present, and future (ARI Special Report 28). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

Products:

Planned Documents and Products:

DO# 0026	Title: Intercultural Communication Analysis for Special Forces
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. Judith Brooks DO-ACOR: Project Director: Dr. Teresa Russell

DO Summary

Problem: The Army Research Institute was asked by the U.S. Army John F. Kennedy Special Warfare Center and School to define the critical performance dimensions of intercultural communication for Special Forces personnel and identify appropriate topics for training.

Objectives: The objectives of this effort were to define intercultural communication and its important dimensions for Special Forces and link those dimensions to appropriate training topics that need to be addressed, noting gaps in current Special Forces intercultural training programs.

Status: Completed (September 28, 1994-December 31, 1994)

Results: The project was conducted in three stages: (1) identifying intercultural communication training topics in the published literature, (2) defining intercultural communication in terms of attributes and performance categories, and (3) tieing the performance categories to the content of U.S. Army John F. Kennedy Special Warfare Center and School training courses. A critical incident sorting procedure resulted in a set of eight intercultural communication categories for Special Forces. The eight categories were mapped against training in terms of the level of skill provided. This mapping showed that very few of the current training courses build intercultural communication skills. Once individuals finish their training rotations, they join teams and develop skills as they apply awareness and knowledge gained in training. Training would need to incorporate more hands-on type exercises to further intercultural communication skills training.

Bibliography:

Russell, T.R., Crafts, J.L., & Brooks, J.E. (1994). A Review of Intercultural Communication Requirements for Special Forces Teams (HumRRO FR-PRD-94-27). Alexandria, VA: Human Resources Research Organization.

Products:

Planned Documents and Products:

DO# 0027	**Title:** Phase 2: Promotion and Professional Development in a Smaller, CONUS-Based Army
Program Area **QR** X **AOS** _____ **MT** _____	**DO-COR:** Dr. Abraham Nelson **DO-ACOR:** LTC John Swenson **Project Director:** Dr. D. A. Harris

DO Summary

Problem: The U.S. Army is in a period of transition unmatched by any other period in history. The particular concern of this study was the viability of the enlisted promotion and professional development systems in the smaller, CONUS-based Army of the 1990's. These two systems are supported by PCS (permanent change of station) operations and policy. The new Army will require fewer PCS moves. This reduction in PCS may adversely affect both professional development and promotion opportunities.

Objectives: This is Phase 2 of a multi-phase effort. The objectives of this effort were to (1) discern the impact of a smaller, CONUS-based force on professional development (PD) and promotion opportunities, (2) document policy changes required to sustain PD and promotion opportunities at current rates, and (3) evaluate the effectiveness and efficiency of current promotion and professional development systems.

Status: Completed (December 21, 1994-July 19, 1995)

Results: Using a variety of simulation models, the effect of the changing authorization structure on average CONUS time on station, the number of rotational moves, and other variables was analyzed. Alternative methods to offset the effects of the change in billet structure, including changes in OCONUS tour lengths, increases in CONUS to CONUS operational moves, and a combination of the two methods were studied. The policies examined to offset potential CONUS stagnation appeared to be more than adequate. For example, a policy of reducing OCONUS tour length by one year significantly increased rotational moves, and reduced average CONUS time on station, by FY 1998, to below what it would have been had there been no change. Overall, the simulations suggested that the potential problems posed by the change in authorization structure would not be severe, and that policies can be adapted to offset any potentially adverse effects.

Bibliography:

Hogan, P., Mehta, M., Harris, D., Nelson, A., & Greenston, P. (1995). Downsizing the Army's Active Enlisted Force: Implications for Rotation Patterns and Associated Personnel Policies (FR-EADD-95-12). Alexandria, VA: Human Resources Research Organization.

Products:

iThink Alternative PCS Rotation Model

Planned Documents and Products:

DO# 0028	Title: Soldier Selection Database Maintenance
Program Area QR __X__ AOS _____ MT _____	DO-COR: Ms. Frances Grafton DO-ACOR: Project Director: Dr. Rodney McCloy/Dr. Scott Oppler

DO Summary

Problem: Two Memoranda of Agreement between the Director of Military Personnel Management, Deputy Chief of Staff for Personnel and ARI (1985, 1992) outlined the requirement for a research and development effort leading to improvements in the Army's enlisted personnel selection and classification system. This effort was executed primarily through two research efforts, Project A and Building the Career Force. The databases created in these two projects are unique for their coverage of soldier performance and aptitudes, and are needed continuously to address a variety of manpower and personnel issues.

Objectives: The purpose of this task was to provide maintenance activities pertaining to these data bases so that these needs can continue to be met. Maintaining the Project A and Career Force data bases is important so that critical manpower and personnel research questions can be addressed.

Status: Completed (January 5, 1995-November 30, 1995)

Results: The database manager logged on to the National Institutes of Health (NIH) mainframe regularly and checked messages from NIH concerning project data and data tapes scheduled for release. The status of tapes scheduled for release by NIH was changed to prevent their release. Also, Enlisted Master File (EMF) data were processed quarterly. The database manager also trained ARI personnel in EMF data processing.

A cross-index was also produced. To facilitate production of the cross-index, the NIH accounts used by the Project A and Career Force projects were cleaned and archived. In some cases, account users were contacted to identify files that he/she would like to keep. SAS programs for individual researchers were downloaded to floppy disks for that researcher to keep.

Workfiles were provided to several ARI researchers. In addition, the database manager and consultant responded to requests from ARI researchers and outside researchers for assistance/information concerning the database, location of files (ARI personnel only), analyses (ARI personnel only), and access to the database.

In sum, the project made substantial progress in archiving the database and streamlining the data storage procedures while producing documentation that will assist researchers in assessing the content of the database and its capability to support their research efforts.

Bibliography:

Human Resources Research Organization (1995). Soldier selection database maintenance. Alexandria, VA: Author.

Products:

Planned Documents and Products:

DO# 0029	Title: FY 1994 Population Representation in the Military Services Report (POPREP94)
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. Ron Tiggle DO-ACOR: Major Dana Lindsley Project Director: Ms. Monica Gribben

DO Summary

Problem: Each year, the Office of the Assistant Secretary of Defense (Personnel & Readiness) [OASD/P&R] publishes a congressionally-mandated report, Population Representation in the Military Services (POPREP). The POPREP provides detailed data on enlisted and officer recruiting and retention. These data include demographic, educational, aptitude, and socioeconomic characteristics of applicants, new recruits, and enlisted and officer members of the Active and Reserve Components.

The POPREP is distributed to a diverse audience within the Department of Defense and the Executive and Legislative branches (including members of the Congress, high-level DoD policymakers, the Services, and the military manpower community) as well as military manpower researchers. Prominent uses of the data are: A source of information to members/committees of Congress; a foundation for addressing congressional committee actions; a basis for budget/legislative changes; a resource for Service research communities and the general public; and, an element for military readiness estimates.

The intended audiences need the report to locate specific population representation information such as marital status by Service, by gender, and by age. Readers also use the report to find clearly stated analyses of military manpower and personnel issues with supporting data as documentation of the analyses.

Objectives: The objectives of this effort were to (1) assist in meeting the requirements for collecting, analyzing, and presenting information on characteristics of the enlisted and officer forces; and (2) develop, produce, and distribute the FY 1994 report on Population Representation in the Military Services.

Status: Completed (March 3, 1995-February 15, 1996)

Results: The primary deliverable from the project was a complete analysis of FY 1994 POPREP data, including Active enlisted applicants, accessions, and members; Active officer accessions and officer corps; Reserve enlisted accessions and members; and Reserve officer accessions and officer corps. To provide analyses of trends in the military and comparable civilian populations, the report contains longitudinal data for selected demographic variables.

Bibliography:

Population Representation in the Military Services, Fiscal Year 1994 (December 1995). Washington, DC: Office of the Assistant Secretary of Defense (Force Management Policy).

Products:

Planned Documents and Products:

DO# 0030	**Title:** Selection and Assessment Support for Special Operations Forces: Phase I
Program Area **QR** _____ **AOS** _____ **MT** __X__	**DO-COR:** Dr. Michael G. Sanders **DO-ACOR:** **Project Director:** Dr. Deirdre Knapp/Mr. Adrian Lussier

DO Summary

Problem: This project was undertaken at the request of the Selection and Assessment Commander of the Special Operations Forces. It was the first phase of a multiphased effort to address concerns about which recruiting and selection techniques should be used to create the most efficient and effective programs.

Objectives: The objective of this effort was to collect and analyze data on the effectiveness of existing recruiting, selection, and training techniques. The effort helped established the basis for empirically derived recommendations for future programs.

Status: Completed (February 15, 1995-November 30, 1995)

Results: Databases including information on several classes of entrants were constructed and analyzed.

Bibliography:

Human Resources Research Organization (1996). Selection and assessment support for Special Operations Forces: Phase I. Author.

Products:

Planned Documents and Products:

DO# 0031	**Title:** Technology Review of the Use of Continuous Speech Recognition for Language Training
Program Area **QR** X **AOS** _____ **MT** _____	**DO-COR:** Dr. Robert Seidel **DO-ACOR:** **Project Director:** Dr. Mazie Knerr

DO Summary

Problem: The Special Operations Command has a requirement to (a) enhance the foreign language training of assigned military personnel, (b) maintain foreign language proficiency of personnel, and (c) provide a capability for rapid familiarization of a specific foreign language before deployment.

Objectives: The objective of this project was to conduct a technology review to identify, demonstrate, and explain promising technologies that lead to the creation of improved foreign language tutors.

Status: Completed (May 12, 1995-November 12, 1995)

Results: The review included a series of round-table discussions in which the practical problems of such technologies were discussed. The technologies emphasized in this review were continuous speech recognition and machine translation.

Bibliography:

Knerr, C.M., Miller, D.J., Greene, B.E. (HumRRO), & Holland, V.M., (ARI). (1995). Technology review of the use of continuous speech recognition for language training (HumRRO Final Technical Report FR-EADD-95-08). Alexandria, VA: Human Resources Research Organization.

Products:

Planned Documents and Products:

DO# 0032	Title: Modeling the Individual Enlistment Decision
Program Area QR _____ AOS _____ MT __X__	DO-COR: Dr. Peter Legree DO-ACOR: Project Director: Dr. Paul Sticha

DO Summary

Problem: The Office of the Deputy Chief of Staff for Personnel asked the U.S. Army Research Institute (ARI) to identify and evaluate factors influencing the enlistment decision and the propensity to serve in the military. Existing data bases have been primarily developed for other reasons (e.g., to track population trends) and are of limited use in developing a general model of factors influencing the enlistment decision or the propensity for military service. Additional data were required to address and quantify the role of factors that may influence the decision to join the military.

Objectives: This was Phase I of a three phase effort. The primary objectives of this effort were to refine measures of enlistment propensity to increase the accuracy of their predictions, to develop improved measures of constructs to segment the youth population, and to develop alternative models describing the enlistment decision process and the factors that influence it.

Status: Completed (May 18, 1995-June 30, 1997)

Results: Data from the Youth Attitude Tracking Study (YATS) support the importance of recruiter contact, advertising, education level, and aptitude in predicting enlistment behavior. Reviews of career decision models and current surveys and databases, interviews with Delayed Entry Program (DEP) recruits, and focus groups with adolescents and parents yielded an expanded list of specific factors that were used to improve the measurement of enlistment propensity. A brief, telephone-administered aptitude test was significantly correlated with currently used cognitive ability tests, and results supported its use and further development. Based on information from this research, a final survey was developed to be used in Phase II of this study.

Bibliography:

Trends in Military Propensity and the Propensity-Enlistment Relationship. The University of Michigan (January 1997).
Modeling the Individual Enlistment Decision -- Final Study Report. (June 1997)

Products: Career Decision Survey.
Modeling the Individual Enlistment Decision -- OMB Clearance Package. Human Resources Research Organization (June 1997).

Planned Documents and Products:

DO# 0033	Title: Option Period Contract Administration/Reports/Other Deliverables
Program Area **QR** _____ **AOS** _____ **MT** _____	**DO-COR:** Dr. Joan Harman **DO-ACOR:** **Project Director:** Dr. Deirdre Knapp

DO Summary

Problem: Providing information on manpower and personnel issues to Army decision-and policy-makers is often a complex, dynamic, multi-stage, iterative process. The accuracy and timeliness of information provided to decision makers are of paramount importance in affecting the quality of decisions and policies. Over the next decade, the U.S. Army will experience an increasing requirement to bring individuals into the Army who are trainable in a wide variety of skill areas. To meet and maintain its high quality manpower needs of the 1990's, the Army will have to develop and implement programs that allow it to locate, assess, assign, and use human resources more efficiently and effectively than it ever has before. As new Army policies are being developed to enhance the Army's ability to man the force, the Army needs programs of research and studies that will provide a quick response mechanism to gather and analyze data on the expected or actual short-term effectiveness of those policies.

Scientific and technical support services are being used that lead to the development and implementation of programs of research and studies on the expected or actual effectiveness of Manpower, Personnel, and Training (MPT) programs. These efforts are part of ARI's MPT program to man the force by conducting research and studies to improve the Army's ability to recruit, identify, assess, classify, assign, lead, train, and maintain the personnel required for the Army.

Objectives: The objectives of this delivery order were to administer the Contract for Manpower and Personnel Research and Studies (COMPRS) for ARI under firm fixed-priced contracts by managing three inter-related tasks: (1) managing the COMPRS program in accordance with established operating procedures, (2) receiving and processing individual Statements of Tasks from ARI, and (3) managing, reporting project progress, and documenting delivery order completion

Status: Completed (July 1, 1996-June 30, 1998)

Results: Described further under each Delivery Order Summary

Bibliography:

HumRRO (1995). Contract for Manpower and Personnel research and studies for the U.S. Army Research Institute for the Behavioral and Social Sciences: Standard operating procedures (ARI Study Note 96-01). Alexandria, VA: U.S. Army Research Institute.

Human Resources Research Organization (1996). Contract for Manpower and Personnel Research and Studies for the U.S. Army Research Institute for the Behavioral and Social Sciences: Final Annual Report: Year Three. Alexandria, VA: HumRRO

Human Resources Research Organization (1997). Contract for Manpower and Personnel Research and Studies for the U.S. Army Research Institute for the Behavioral and Social Sciences: Final Annual Report: Year Four. Alexandria, VA: HumRRO

See each Delivery Order Summary

Products: The following Delivery Orders were issued during Year 3:

DO#0033 Option Period Contract Administration/Reports/Other Deliverables
DO#0034 Cost Analysis of the Army Career and Alumni Program's (ACAP) Transition Assistance Office (TAO) Services
DO#0035 Optimal Reserve Recruiting Model (ORRM)
DO#0036 Application of Statman's Cluster Evaluation System to Current Problems in Army Occupational Analysis
DO#0037 Studies and Analyses for Evaluating the Education Credential Tier System
DO#0038 Support in Developing an Army Civilian Artificial Intelligence (AI) Specialty
DO#0039 Application of Speech Recognition to Special Operation Forces' (SOF) Language Sustainment and Enhancement Computer-Based Training (CBT)
DO#0040 Soldier Selection Database Maintenance - Phase II
DO#0041 Selection and Assessment Support for Special Operations Forces: Phase II
DO#0042 Survey of Officer Careers (SOC) - Phase I
DO#0043 Problem Solving Strategies for Leadership Instruction
DO#0044 Graphical Displays for Providing Feedback on the Leader Azimuth Check
DO#0045 The U.S. Army Research Institute's Reserve Component Manpower, Personnel, and Training Work Program: Product Review and Future Directions
DO#0046 Assistance in Designing a Selection and Assignment Technology Demonstration

The following Delivery Orders were issued during Year 4:

DO#0047 Design of an Econometric Module to Support the ODCSPER Strength Management System Redesign
DO#0048 Scoring Cognitive Aptitude Tests
DO#0049 Leader Research Roadmap
DO#0050 Study of Military Occupational Specialties (MOS) Design/Re-Design Process
DO#0051 Documentation and Archival of Selected ARI Data Bases
DO#0052 Modeling the Individual Enlistment Decision - Phase II
DO#0053 Quality Assurance Monitoring and Assessment System for the DoD Personnel Services and Support Outsourcing Contract
DO#0054 Modification of the Computerized Adaptive Screening Test (CAST) for Use by Recruiters in the Military Services
DO#0055 Multinational Force and Observers (MFO) Follow-Up Surveys for Soldiers and Spouses

Products (cont):

DO#0056 PERSTEMPO Impact Study
DO#0057 Documentation and Archival of Selected ARI Data Bases, Phase II
DO#0058 Support for Soldier Assessment and Selection: Phase III
DO#0059 Soldier Selection Database Maintenance - Phase III

The following Delivery Orders were issued during Year 5:
DO#0060 PC-Based Automated Command Climate Survey
DO#0061 Update of the U.S. Army Research Institute's Officer and Enlisted Data Bases for 1995 and 1996
DO#0062 Development & Assessment of a Prototype Database for Tracking First Tour Non-Prior Service Regular Army Attrition
DO#0063 Determining and Documenting the Functional Requirements for Operational-Enlisted Personnel Allocation System (EPAS)
DO#0064 Enlisted Finance, Chaplain, and Aviation MOS Occupational Analysis Study
DO#0065 Study of Enlisted Common Task (CT) Training
DO#0066 Analysis and Reporting Results of 1996 Survey of Officer Careers (SOC), Phase II
DO#0067 Modeling Military Careers
DO#0068 A-76 Commercial Activities (CA) Study of the Army Career and Alumni Program's (ACAP) Transition Assistance Office (TAO) Services
DO#0069 Military Vehicle Operator Selection Project
DO#0070 Reserve Component Research: FY 2000-2004
DO#0071 Operation Joint Endeavor (OJE) Final Report
DO#0072 Soldier Characteristics for the 21st Century, Part I: Methodology
DO#0073 An Assessment of the Values of New Recruits and the Joint Data Collection of Values and the Assessment of Individual Motivation (AIM)
DO#0074 PC-Based Automated Command Climate Survey for TDA Units
DO#0075 Pre-Implementation Research on the Assessment of Individual Motivation (AIM) Phase I: Item Development
DO#00-- ARI's Contributions to the All-Volunteer Force (AVF)
DO#00-- A Pre-Analysis Fact-Finding Study of the Army Family Member Employment Program
DO#00-- Analyses and Models of PERSTEMPO
DO#00-- Designing and Planning a Comprehensive Investigation of Enlisted Attrition across the First-Term LifeCycle

Planned Documents and Products:

See each Delivery Order Summary for additional documents and products.

DO#0034	**Title:** Cost Analysis of the Army Career and Alumni Program's (ACAP) Transition Assistance Office (TAO) Services
Program Area **QR** ___X___ **AOS** _____ **MT** _____	**DO-COR:** Dr. Joan Harman **DO-ACOR:** **Project Director:** Dr. Mary Ann Statman

DO Summary

Problem: In assessing the efficiency and effectiveness of the Army Career and Alumni Program (ACAP) Transition Assistance Office (TAO), ACAP managers required a comparison of government- and contractor-provided TAO services.

Objectives: The objective of this study was to analyze the effects on program efficiency and costs of outsourcing ACAP's transition assistance services, and of consolidating them with job assistance functions.

Status: Completed (July 11, 1995-April 11, 1996)

Results: The major finding of this study was that the separate provision of transition and job assistance services is ineffective for the soldier, the unit, and ACAP. It was concluded that outsourcing the transition assistance functions to a private contractor, and consolidating them with the job assistance functions, would reduce ACAP's operational costs and improve the efficiency of the program. The greatest improvements in efficiency can be obtained from the following actions: streamlining the ACAP transition process for the client; combining transition and job assistance counseling jobs; improving the efficiency of the counseling process; and eliminating duplication in outreach and marketing activities, the client intake process, and administrative duties. In addition to identifying more efficient operational procedures, we identified three possible hidden costs of operating TAOs that should be considered in cost-benefit estimates: (1) TAOs have the use of government equipment that may not be available to a contractor; (2) TAOs may use work study students who are paid by the Department of Veterans' Affairs and cannot work for a contractor; and (3) ACAP funds and manages job fairs, functions that are currently excluded from contractor operations. There were also suggestions for reengineering ACAP field offices to improve efficiency and effectiveness: (1) provide initial transition assistance in a large group briefing in all ACAP offices, (2) eliminate duplication in reviewing the preseparation counseling checklist and the Individual Transition Plan, (3) improve ACAP quality assurance procedures and monitoring of customer satisfaction, (4) standardize the client outreach process, and (5) improve communication among ACAP offices.

The COR Branch will use these findings to guide decisions concerning outsourcing of transition assistance services and consolidating them with job assistance services. The findings can also be used to improve the efficiency and effectiveness of ACAP by reengineering several processes irrespective of privatization. Other military decision makers can use the approach and results of this study to assess the potential for outsourcing in-house government functions in their organizations and to assist in planning and implementing a privatization effort.

Bibliography:

Statman, M.A., Gribben, M.A., Hogan, P.F., & Dall, T.M. (1996). Cost Analysis of the Army Career and Alumni Program's (ACAP) Transition Assistance Office (TAO) Services (HumRRO Final Report FR-EADD-96-14). Alexandria, VA: Human Resources Research Organization.

Products:

Public Law A-76 Summary
Cost Comparison Plan
Workload Model
A-76 Waiver Package

Planned Documents and Products:

DO# 0035	Title: Optimal Reserve Recruiting Model (ORRM)
Program Area **QR** __X__ **AOS** _____ **MT** _____	**DO-COR:** Dr. Peter Greenston **DO-ACOR:** Dr. Robert Wegner (U.S. Army Recruiting Command) **Project Director:** Dr. Peter McWhite

DO Summary

Problem: U.S. Army Recruiting Command's (USAREC) recruiting force consists of approximately 1,500 USAR and 5,000 Regular Army (RA) recruiters. These personnel are located in over 2000 recruiting stations of which about 1300 are shared by the USAR and RA. In jointly manned stations nearly 80 percent have one USAR recruiter, 20 percent have two, and only one percent have three.
USAREC is faced with the management problem of allocating its USAR recruiters among the recruiting stations in a manner that will maximize enlistments (mission achievement) and simultaneously fulfill local USAR units accession requirements.

Objectives: This study had two objectives: (1) Develop recruiting costs that estimate the amount of time it takes recruiters to access nonprior service (NPS) candidates and to transfer prior service (PS) members of the Individual Ready Reserve (Tasks 2-3) and (2) Develop an ORRM that uses each recruiting battalion's candidate demographics, propensity, staffing, etc., to calculate a standardized man-hour cost of recruiting NPS and PS mission boxes (Tasks 5-6).

Status: Completed (7 September 1995 - 30 June 1996)

Results: Because of the poor correlation with recruiting performance of traditional population measures, a new recruiting propensity measure called *member-adjusted vacancies* was developed. It combined propensity information from the number of TPU members in a ZIP code with potential production information from available vacancies. Member-adjusted vacancies correlate at the 0.91 level with USAR recruit production.

An optimal Reserve Recruiting Model (ORRM) was formulated that (1) maximizes recruit production subject to recruiter limits or (2) minimized the number of recruiters subject to production requirements. The ORRM solves for non-prior service and prior service production separately, providing a long-needed element of control for recruiting managers. Because we exploited the special structure of the ORRM, optimal solutions can be quickly arrayed on a spreadsheet and viewed instantly.

Bibliography:

McWhite, P. B. & Swibies, G. (1997). Determination of the U. S. Army Reserve (USAR) Man-Hour Cost of Recruiting and Optimal Reserve Recruiting Model (HumRRO Final Report FR-WATS-97-03). Alexandria, VA: Human Resources Research Organization.

Products:

Planned Documents and Products:

DO #0036	**Title:** Application of Statman's Cluster Evaluation System to Current Problems in Army Occupational Analysis
Program Area **QR** ___X___ **AOS** _____ **MT** _____	**DO-COR:** Dr. Clinton B. Walker **DO-ACOR:** **Project Director:** Dr. Mary Ann Statman

DO Summary

Problem: The U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) is currently engaged in an effort to improve the efficiency and effectiveness of the Army Occupational Survey Program (AOSP). One component of this effort is to improve occupational analysis processes and products.

Objectives: In 1994 Statman, Gribben, Harris, and Hoffman proposed and tested a new approach to occupational cluster evaluation (OCE). The primary objective of the present project was to evaluate and prepare one of the cluster evaluation steps in the OCE method for importation into the data analysis capacity of the AOSP. The addition of a cluster evaluation method to the AOSP will improve the quality and usefulness of the data for AOSP users and expand the range of analyses delivered.

Status: Completed (September 12, 1995-February 28, 1997)

Results: HumRRO developed a new method for validating occupational and other types of cluster structures in real data. The validation procedure, the cross-validation and internal validity (CV*IV) procedure, includes a Monte Carlo statistical procedure that allows the user to conduct hypothesis testing of the results of clustering algorithms in samples of real data. The cross-validation and internal validity analysis and the statistical procedure are significant new developments in cluster analysis, which move the field from simple data analysis techniques to inferential statistics. HumRRO successfully validated the CV*IV procedure in a large data base. The results showed that the CV*IV procedure produces the desired Type I error rate and has high power in both small and large samples. Since completion we have presented the method and results to three different technical audiences and received highly favorable responses about the validity and utility of the CV*IV for both research and applied occupational analysis and classification problems.

Bibliography:

Statman, M.A. (April, 1996). An approach to evaluating the accuracy of job family structures. Paper presented at the 11th Annual Conference of the Society of Industrial and Organizational Psychology, San Diego, CA.

Statman, M.A., Diaz, T.E., & Vlakimirsky, Y. (May, 1997). Application of Statman's Cluster Evaluation System to current problems in Army occupational analysis. (HumRRO Draft Final Report FR-WATSD-97-04). Alexandria, VA: Human Resources Research Organization.

Statman, M.A. & Diaz, T.E. (June, 1997). The development and validation of a statistical c luster validation methodology for empirical data. Paper presented to the International Occupational Analyst Workshop, San Antonio, TX.

Statman, M.A. & Diaz, T.E. (June, 1997). The Validation of a Statistical Cluster Validation Methodology with Empirical Data. Paper presented to the Classification Society of North America, Washington, DC.

Products:

CV*IV prototype software

Planned Documents and Products:

DO# 0037	Title: Studies and Analyses for Evaluating the Education Credential Tier System
Program Area QR ___X___ AOS _____ MT _____	DO-COR: Dr. Mark Young DO-ACOR: Dr. Jane Arabian Project Director: Dr. Janice Laurence

DO Summary

Problem: It is time for DoD to reevaluate its education credential tiers and to begin to conduct analyses that extend beyond a simple update of attrition rates by credential within the existing three tier system.

Objectives: The goals of this project are to assist the OASD/FMP (Accession Policy) in meeting its Congressional requirements to monitor and revise education credential enlistment coding practices and conduct multivariate analyses to support this effort.

Status: Completed (11 September 1995 - 14 July 1996)

Results: Two reports were delivered; one (without authors listed) regarding GED credentials specifically and the other, final report, describing the status of the three tier system today.

Bibliography:

Laurence, J.H., Ramsberger, P.F., & Arabian, J. M. (1996, September). Education credential tier evaluation (FR-EADD-96-19). Alexandria, VA: Human Resources Research Organization

Products:

Congressional response; tier improvement recommendations

Planned Documents and Products:

DO# 0038	Title: Support in Developing an Army Civilian Artificial Intelligence (AI) Specialty
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. Joan Harman DO-ACOR: Mrs. Mary Campbell Project Director: Dr. Deirdre Knapp

DO Summary

Problem: The Director of Information Systems for Command, Control, Communications, and Computers (DISC4) is embarking on a groundbreaking effort to create the first Army civilian specialty area. This specialty will cross career programs and allow civilians with the requisite skills receive certification. This first effort is designed for civilians who have expertise in AI and/or robotics.

Objectives: The objective of this effort is to gather population description, job analysis, training needs, certification, and performance standard information to support creation of an AI specialty area for Army civilians.

Status: Completed (September 26,1995-May 30, 1997)

Results: A job analysis was conducted to identify AI-related job tasks performed by Army civilians and the knowledge areas (i.e., competencies) that are necessary to successfully perform them. Competencies identified as the most important to successful job performance across different types of Army civilian jobs form the basis for a recommended set of certification standards. To be certified, applicants will need to demonstrate that they have had sufficient amounts of education or experience or combinations of the two for all six of the so-called "core competencies" and for three of the 18 so-called "supplemental competencies."

Bibliography:

Waugh, G., & Knapp, D.J. (1997). Development of an Army Civilian Artificial Intelligence/Robotics (AI/Robotics) Specialty (FR-EADD-97-16). Alexandria, VA: HumRRO.

Products:

Planned Documents and Products:

DO#0039	**Title:** Application of Speech Recognition to Special Operation Forces' (SOF) Language Sustainment and Enhancement Computer-Based Training (CBT)
Program Area **QR** ___X___ **AOS** _____ **MT** _____	**DO-COR:** Dr. Melissa Holland (ARI) **DO-ACOR:** **Project Director:** Dr. David H. Hannaman **DO Summary**

Problem: The Special Operations Command (SOCOM) needs to sustain and enhance the foreign language skills of Special Operations Forces (SOF) personnel, and provide a capability for rapid familiarization of a specific foreign language prior to deployment of SOF units. However, conventional classroom training to exercise speaking skills is available only at widely spaced intervals and at central locations that require SOF personnel to leave their units. Therefore, there is a need to produce courseware that can be used by SOF personnel to acquire, sustain, and enhance their foreign language speaking skills at their units' location. Computer-based training (CBT) has been present in SOF units for some time (used to teach reading and listening skills), but has not used speech recognition technology which is necessary to teach speaking skills.

Objectives: The objective of this project was to develop a speech interactive version of the Military Language Tutor (MILT) by expanding its existing microworld software to include more functions of use to SOF and to incorporate speech input. A commercial off-the-shelf (COTS) speech recognition technology was modified to be capable to treat modern Standard Arabic (MSA), a language of proven difficulty and criticality to SOF. Additionally, MILT's microworld functions were expanded to include the ability for users to move through multiple scenes or settings, and the ability for courseware authors to reconfigure scenes.

Status: Completed (9 Nov 95 - 30 Mar 97)

Results: COTS speech recognition software was modified and incorporated into MILT's microworld software. The modified microworld's speech recognition capability was then tested using MSA. The test results were positive, demonstrating both the utility and the benefits of the expanded microworld technology.

Bibliography:

Products: Software updates to MILT CBT authoring system.

Planned Documents and Products:

DO#0040	**Title:** Soldier Selection Database Maintenance - Phase II
Program Area **QR** __X__ **AOS** _____ **MT** _____	**DO-COR:** Ms. Frances Grafton **DO-ACOR:** **Project Director:** Dr. Rodney McCloy/Dr. Scott Oppler

DO Summary

Problem: Two Memoranda of Agreement between the Director of Military Personnel Management, Deputy Chief of Staff for Personnel and the Army Research Institute (1985, 1992) outline the requirement for a research and development effort leading to improvements in the Army's current enlisted personnel selection and classification system. This effort was executed principally through two research efforts, Project A and Building the Career Force. The data bases created for these two projects are unique for their coverage of soldier performance and aptitudes, and are needed continuously to address a variety of manpower and personnel issues.

Objectives: The objective of this task was to continue maintenance activities, begun in COMPRS Delivery Order 0028, pertaining to these data bases so that these needs can continue to be met. Maintaining the Project A and Career Force data bases is important so that critical manpower and personnel research questions can be addressed.

Status: Completed (January 29, 1996 - November 28, 1996)

Results: The database manager logged on to the National Institutes of Health (NIH) mainframe regularly and checked messages from NIH concerning project data and data tapes scheduled for release. The status of tapes scheduled for release by NIH was changed to prevent their release. The database manager was placed on hold in case the ARI analysts of the quarterly EMF data files required assistance in processing said files. As of 30 November 1996, no assistance was requested.

A cross-index was also produced. To facilitate production of the cross-index, the NIH accounts used by the Project A and Career Force projects were cleaned and archived on NIH system tapes. Prior to releasing an account, summary reports were generated to identify all files on NIH. The database manager and consultant jointly evaluated all files on each account, deciding upon the archive status of each file.

Five codebooks were completed for SSDM-II: Longitudinal Validation (LV)-Predictor, LV-End-of-Training (EOT), LV-First Tour (LVI) (Batch A MOS), LVI (Batch Z MOS), and LV-Second Tour (LVII). Format changes from Phase I (e.g., more extensive introduction, reduced size) were implemented into the five codebooks.

Workfiles were provided to several ARI researchers. In addition to requests for workfiles, the database manager and consultant responded to requests from ARI researchers and outside researchers for assistance/information concerning the database, location of files (ARI Personnel only), analyses (ARI personnel only), and access to the database. The consultant also revised project-specific SAS procedures in the project procedure library (PROCLIB) to incorporate the latest changes in the SAS and NIH system.

Two sets of measures from the Concurrent and Longitudinal Validation data collections were prepared and delivered to ARI. One set of measures was placed in three-ring binders (n = 13) and the other set was provided in expandable file folders (this latter set for making copies, as desired). A small number of instruments could not be located (e.g., the 13B hands-on tests from the CVI collection).

In sum, the Project A and Career Force databases have been maintained and "cleaned" to assist ARI in examining a variety of manpower and personnel issues in an even more efficient and less costly manner. The project made substantial progress in archiving the database and streamlining the data storage procedures while producing documentation that will assist researchers in assessing the content of the database and its ability to support their research efforts.

Bibliography:

Human Resources Research Organization (1997). Soldier selection database maintenance - Phase II. Alexandria, VA: Author.

Products:

Planned Documents and Products:

DO# 0041	**Title:** Selection and Assessment Support for Special Operations Forces: Phase II
Program Area **QR** ___X___ **AOS** _____ **MT** _____	**DO-COR:** Dr. Michael G. Sanders **DO-ACOR:** **Project Director:** Dr. Deirdre Knapp/Mr. Adrian Lussier

DO Summary

Problem: This project was undertaken at the request of the Selection and Assessment Commander of the Special Operations Forces. It is the second phase of a multiphased effort to address concerns about which recruiting and selection techniques should be used to create the most efficient and effective programs.

Objectives: The objective of this effort was to collect and analyze data on the effectiveness of existing recruiting, selection, and training techniques. The effort helped to establish the basis for empirically derived recommendations for future programs.

Status: Completed (February 28, 1996-February 27, 1997)

Results: Databases including information on several classes of entrants were constructed and analyzed.

Bibliography:

Products:

Planned Documents and Products:

DO#0042	**Title:** Survey of Officer Careers (SOC) - Phase I
Program Area **QR** _____ **AOS** _X_ **MT** _____	**DO-COR:** Dr. Morris Peterson **DO-ACOR:** **Project Director:** Dr. Rodney McCloy

DO Summary

Problem: The U.S. Army Research Institute (ARI) initiated a program of research on officer careers and career decision-making. As part of the program, ARI developed survey instruments and a longitudinal database on junior Army officers under the title "Longitudinal Research on Officer Careers (LROC)." It was decided to transition LROC into an operational effort so that it could respond more directly to the operational needs of the personnel and leadership communities. The operational survey is the Survey of Officer Careers (SOC). A primary goal of the SOC is to provide timely, policy-relevant information on officer careers to top Army personnel (e.g., decision makers, policy makers).

Objectives: The objective of this project was to analyze the data collected by ARI to identify and report on the current status and trends in officer careers, including a longitudinal sub-sample. The findings are important for helping the U.S. Army understand what happens to officers during their careers, and the types and extent of impacts that events, behaviors, and attitudes/opinions have on officer careers and their plans for their careers. Two phases were required to complete all of the required work. The objectives of this Phase I effort were to provide current information on the concerns of officers about their professional careers by analyzing the data from the 1996 Survey of Officer Careers (SOC); provide longitudinal analysis for identifying trends, using a master LROC data base (prepared under COMPRS Delivery Order 0021) which includes the 1996 SOC survey and the 1988, 1989, 1990 and 1992 Longitudinal Research on Officer Careers (LROC) surveys; identify changes in officer behaviors, attitudes/opinions, and characteristics occurring since 1988; and produce a series of special reports (four during Phase I, eight during Phase II) and briefings to facilitate distribution of the findings of the surveys.

Status: Completed (February 28, 1996 - September 30, 1997).

Results: The topics for the four special reports were amended to entail cross-sectional analyses of the 1996 SOC database. This amendment was enacted in light of difficulties in obtaining key OMF data from the Army. A 1996 SOC client database was produced. This served as the germ database for all special topic analyses and was the source for all SOC frequencies and crosstabulations requested in the SOW that (a) were delivered to ARI and (b) served as the data for the data charts requested in the SOW.

Bibliography:

Products: Project database, database codebooks, instructions for database maintenance, list of 20 special topics, four Special Topics reports, briefing slides for two special reports

Planned Documents and Products:

DO# 0043	Title: Problem Solving Strategies for Leadership Instruction
Program Area QR _____ AOS _____ MT __X__	DO-COR: Mr. Robert Solick DO-ACOR: Project Director: Dr. Deirdre Knapp/Dr. Julia Pounds

DO Summary

Problem: The ARI Research Unit at Ft. Leavenworth, KS has been investigating the individual and situational factors influencing the use of various problem solving strategies used by leaders. A data base of 80 problem solving protocols is available for analysis.

Objectives: The objective of this project was to analyze the problem solving data base and produce a report on the situational determinants of problem solving strategy effectiveness and provide recommendations for instructing leaders of problem solving groups.

Status: Completed (February 28, 1996-September 28, 1997)

Results: First the relationship between familiarity with the problem and the approach to the problem was elaborated. Second, the recommended courses of action for both problems were categorized on higher-order tactical dimensions and then the strategies associated with these dimension were examined. Third, one strategy was used to show how strategy-use interacts with content knowledge. Fourth, the original interview transcripts were reviewed for evidence of naturalistic problem solving strategies. Finally, the working concept of "approach" was reevaluated and elaborated. Other likely "organizers" that might facilitate or hinder problem solving were identified.

Bibliography:

Pounds, J. & Fallesen, J.J. (1997). Problem solving of mid-career Army officers: Identification of general and specific strategies (Interim Report). Alexandria, VA: HumRRO.

Pounds, J. & Fallesen, J.J. (1997). Influences on problem solving strategies of mid-career officers (Final Report). Alexandria, VA: HumRRO.

Products:

Planned Documents and Products:

Interim and final study reports.

DO#0044	**Title:** Graphical Displays for Providing Feedback on the Leader Azimuth Check
Program Area **QR** ___X___ **AOS** _____ **MT** _____	**DO-COR:** Mr. Robert Solick **DO-ACOR:** **Project Director:** Mr. Jeff Barnes

DO Summary

Problem: The Leader Azimuth Check (AZIMUTH) is a behavior questionnaire developed to provide self assessments and observations from peers, superiors, and subordinates. It was created to assist in self-development in various leader competencies. Research is underway to evaluate the utility of the instrument for assessing direct, organizational, and strategic levels of leadership in military organizations. To provide feedback to participants in a timely manner, ARI required the development of automated processing and reporting programs for AZIMUTH.

Objectives: The objective of this effort was to develop computer programs and associated data handling procedures for scoring instruments, computing norms for reference groups, and for preparing individual feedback reports. The feedback reports were to include attractive and interpretable graphical displays showing an individual's results compared to those of the appropriate reference group(s). The programs and procedures were to be adaptable to changes in (a) the reference group, (b) in the degree of assessment (i.e., data may not always be from superiors or from subordinates, and the number of peers or subordinates may vary across individuals), and (c) scoring procedures. Scoring procedures may change as new factor analyses result in new weights being assigned and/or as new items are added and old ones deleted during the refinement of the instrument.

Status: Completed (May 29, 1996 - October, 1997)

Results: A processing system using the statistical processing capabilities of SAS and mail-merge technology of MS Word was developed. The system consists of three modules -- data editing, scoring, and feedback. The editing module reads the raw data file and checks for missing/miscoded data and other anomalies. The scoring module performs all calculations required to produce the leadership dimension scores. The feedback module consists of a SAS routine to create a mail-merge file. This is then used with a primary merge document and several macros to produce the finished feedback forms which comply with the specifications noted above.

Bibliography:

Barnes, J.D, (1997). Graphical Displays for Providing Feedback on the Leader Azimuth Check: Final User's Manual. Alexandria, VA: Human Resources Research Organization.

Products:

Leader Azimuth Check Processing Software (November 1996)

Planned Documents and Products:

DO# 0045	**Title:** The U.S. Army Research Institute's Reserve Component Manpower, Personnel, and Training Work Program: Product Review and Future Directions
Program Area **QR** _____ **AOS** _____ **MT** __X__	**DO-COR:** Dr. Joseph Hagman **DO-ACOR:** Dr. Ruth Phelps **Project Director:** Dr. Deirdre Knapp

DO Summary

Problem: A current need exits to organize and document ARI's Reserve Component (RC) related research findings and products and to determine their potential impact on RC manpower-, personnel-, and training-related decisions.

Objectives: The objective of this work is to (a) review and document all manpower-, personnel-, and training-related research findings and products reported and/or developed by ARI since 1980; and (b) identify and elaborate upon specific high-priority RC issues in need of future research, development, test and evaluation, and/or study and analysis over the next ten years.

Status: Completed (May 30, 1996-May 30, 1997)

Results: The project's Volume 1 report provides a brief overview of the RC environment and includes summaries of ARI research products/findings currently available for RC use. Most of ARI's research that has directly involved the study of RC issues is related to training. Other research has focused on manpower and personnel issues, such as recruiting and retention. The project's Volume 2 report discusses RC research (conducted within and outside ARI) in a number of domains (e.g., various training-related areas, retention, leadership). Critical research questions are identified and suggestions for using these as a basis for an ARI RC-related research agenda are offered. As part of this project, approximately one dozen "fact sheets" were drafted for incorporation into ARI's marketing materials.

Bibliography:

Ford, J.P., Schultz, S.R., Knapp, D.J., & Katz, B.D. (1997). Army reserve components research roadmap (Volume 1): ARI research summary (IR-EADD-97-17). Alexandria, VA: HumRRO.

Knapp, D.J., & Ford, J.P. (1997). Army reserve components research roadmap (Volume 2): Research agenda (DFR-EADD-97-20). Alexandria, VA: HumRRO.

Products: Fact Sheets

Planned Documents and Products:

DO#0046	Title: Assistance in Designing a Selection and Assignment Technology Demonstration
Program Area **QR** ___X___ **AOS** _____ **MT** _____	**DO-COR**: Dr. Jacinto Silva **DO-ACOR:** **Project Director:** Dr. Mary Ann Statman

DO Summary

Problem: The Army has spent over a decade developing improved selection and assignment procedures. It is necessary to demonstrate that the various components of an improved selection and assignment system can have substantial value to the Army.

Objectives: The objective of this project was to assist the Army Research Institute (ARI) in designing and conducting research to determine the value of improvements in new procedures for selecting and assigning applicants for Army enlisted service.

Status: Completed (May 30, 1996-January 15, 1997)

Results: HumRRO researched three different theoretical and methodological questions on personal classification and prepared memoranda describing the relevant problems and solutions. Only the newly developed cluster reliability and validity software was used to conduct a series of analyses of Army accession subgroups according to ASVAB test score profiles. HumRRO also provided consultation to ARI researchers on problems and issues as they arose during the contract period.

Bibliography:

Products:
Final Task 1 Review Memorandum
Final Task 2 Review Memorandum
Final Task 3 Review Memorandum

Planned Documents and Products:

DO# 0047	Title: Design of an Econometric Module to Support the ODCSPER Strength Management System Redesign
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. Peter Greenston DO-ACOR: Project Director: Dr. Patrick Mackin (SAG Corp.)

DO Summary

Problem: The purpose of this effort was to develop design specifications for the econometric model that would support the new Army Loss Forecasting and Inventory Projection (LFIP) system. The research focused on identifying the most appropriate behavioral models for this purpose. The research also examined how the econometric module interact with other LFIP elements and produced recommendations for future research to support the LFIP system's analytical capability.

Objectives: The objectives of this work were to (a) review the analytical requirements of the system and its users; (b) examine alternative behavioral approaches; (c) recommend the most appropriate approaches; and (d) outline a research plan for prioritizing and carrying out the necessary analysis.

Status: Completed (July 11, 1996-September 30, 1996)

Results: This study assessed alternative approaches to incorporating an econometric module in ODCSPER's redesigned strength management system. It included an examination of the operation of the strength system and an assessment of the analytical needs of strength planners. The study also looked at available econometric methodologies and results available in the literature. These findings were integrated with an evaluation of the major management issues for individual Army personnel communities.

Study findings include a recommendation on the module's design specification, including specification of the key module algorithms and identification of appropriate econometric models and parameters. Other results include an evaluation of existing empirical parameters and recommendations for future econometric research to provide the module with new and improved parameters.

Bibliography:

Greenston, P. M., Hogan, P. F., & Mackin, P. C. (1997) Final Report: Design of an Econometric Module to Support the ODCSPER Strength Management Systems Redesign.

Products:

Greenston, P. M., Hogan, P. F., & Mackin, P. C. (October 1996). Econometric Module for ODCSPER Manpower Models: Interim Briefing.

Greenston, P. M., Hogan, P. F., & Mackin, P. C. (April 1997). Design of an Econometric Module to Support the ODCSPER Strength Management Systems Redesign: Final Briefing.

Planned Documents and Products:

DO# 0048	Title: Scoring Cognitive Aptitude Tests
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. Trueman Tremble DO-ACOR: Project Director: Dr. Deirdre Knapp

DO Summary

Problem: ARI research has used a variety of both standard and newly-developed opened-ended instruments to study the cognitive and problem-solving capabilities of leaders. These instruments present research subjects a scenario or other type of stem which prompts them to generate or construct open-ended responses. Scoring rules are applied by raters to derive scores on these open-ended measures. The instruments are currently being used for research purposes, with an eye on their future potential use in developmental assessment.

Three instruments were the subject of this effort. Two are based on standard measures of creative thinking and writing skills (Consequences and Alternate Headlines). A third instrument (Military Scenarios) was developed to measure how well individuals construct (i.e., make sense out of) problems. While measures of scorer consistency have not been low, there is reason to believe that scoring protocols for these instruments could be improved to enhance their psychometric characteristics.

Objectives: The objectives of this work were to (a) research the most appropriate and useful measure of reliability for the cognitive aptitude tests, (b) identify modifications for the scoring system to improve the reliability of scoring responses. and (c) demonstrate and document the reliability of the recommended scoring modifications.

Status: Completed (July 31, 1996-July 31, 1997)

Results: This project sought to examine and improve the reliability of the scoring systems for three instruments which have been used in previous Army leadership research. Review of existing literature and interviews with project staff participating in prior research provided initial information concerning the strengths and weaknesses of the scoring systems for the three instruments. This information was used to recommend modifications to the original scoring systems. Six individuals were trained to used the modified scoring systems. The modified scoring systems were evaluated by rescoring responses randomly selected from the sample which had been scored according the scoring systems originally developed for the leadership research program. Reliability estimates for the three modified scoring systems were consistently strong and showed improvement over those obtained through the original scoring scheme. The final report recommends use of the revised rating systems in future research to improve the quality of measurement from the three predictors.

Bibliography: Dela Rosa, M.R., Knapp, D.J., Katz, B.D., & Payne, S.C. (1997). Scoring system improvements to three leadership predictors (Technical Report 1070). Alexandria, VA: U.S. Army Research Institute.

Products:

Planned Documents and Products:

DO# 0049	Title: Leader Research Roadmap
Program Area QR __X__ AOS _____ MT _____	**DO-COR:** Dr. Trueman Tremble **DO-ACOR:** **Project Director:** Dr. Deirdre Knapp/Mr. Michael Shaler

DO Summary

Problem: As part of its Manpower and Personnel research program, ARI supports the development of effective military leaders by conducting research on leader requirements; on technologies applicable to leader selection, assignment, and skill development; and on organizational conditions impacting on and impacted by effective leadership performance. ARI is now reviewing this research for purposes of developing an integrated description of its overall research program on leader development. The program description is to represent the separate projects ongoing in ARI and the relationships among them in a way that (1) accurately portrays and (2) meaningfully communicates the program and its payoffs to the military sponsors of the research and to members of the research community.

Objectives: The objective of this project is to provide recommendations on the design of a presentation of ARI's leader development research which effectively communicates a summary of the research and its applied and scientific payoffs.

Status: Completed (July 31, 1996-September 30, 1996)

Results: The leadership roadmap is designed to align ARI's leadership research program more closely with approved Army leadership doctrine and to make explicit the linkages between individual research tasks and the appropriate segments of approved doctrine. Additionally, a mechanism to identify Army sponsors for each research task is proposed.

Bibliography:

Products: Leadership Research Roadmap

Planned Documents and Products:

DO# 0050	Title: Study of Military Occupational Specialties (MOS) Design/Re-Design Process
Program Area QR _____ AOS _____ MT __X__	DO-COR: Mr. Bill Badey DO-ACOR: Project Director: Dr. Deirdre Knapp/Dr. Allan Akman

DO Summary

Problem: The Army routinely is faced with changing tasks, jobs, and occupational structure in response to changes in doctrine, organization, training, mission, and leadership. Since 1989, the Army Research Institute (ARI) has sponsored research on MOS design/re-design focusing both on process and methods. As a by-product of this research, a MOS Decision Support Technology (DST) was developed. One of its elements is the Task Knowledges Commonality Analysis Method (TKCAM), a technique for identifying and comparing the knowledge requirements associated with existing and proposed MOSs.

Objectives: The objectives of this effort were to: (1) determine how proponents actually develop MOS design proposals, what their capabilities and information needs in MOS design are, and what the procedures and informational needs are in the review chain for MOS Occupational Classification Structure (MOCS) proposals; and (2) test TKCAM in the context of current MOS design/re-design actions to ensure the effectiveness of the TKCAM User's Guide.

Status: Completed (July 31, 1996 - February 28, 1998)

Results: During Spring 1997, a series of field visits to enlisted personnel proponent offices were conducted at which data were gathered about current MOS design/re-design practices. Proponent offices were visited at Aberdeen Proving Ground, Fort Bliss, Fort Gordon, Fort Jackson, Fort Knox, Fort Lee, Fort Sam Houston, and Fort Sill. The final report is based on the data collected and describes the need for research, the target audience, and the potential payoffs. The appendices provide a summary description of current Army MOS design/re-design practices as well as a summary of the data collected from each proponent.

Bibliography:

Akman, A. (1998). Task Knowledges Commonality Analysis Method (TKCAM): Its suitability as a method for Army personnel proponents to assess job restructuring feasibility. Alexandria, VA: HumRRO.

Products:

TKCAM User's Manual
TKCAM Training Package
TKCAM Bulletin/Distribution Letter
TKCAM Information Memorandum (short & long forms)

Planned Documents and Products:

DO# 0051	Title: Documentation and Archival of Selected ARI Data Bases
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. Ron Tiggle DO-ACOR: Project Director: Ms. Ani DiFazio

DO Summary

Problem: The purpose of this effort was to develop documentation and archival standards for extant and future ARI data bases and to apply these standards to selected datasets. At the commencement of this effort, there were no formal procedures or guidelines for the documentation and archive of the numerous data bases that have been developed by or for ARI. As a result, critical information needed to access and use data has too often been lost or unavailable to new users. This problem is exacerbated by ARI's downsizing in that it cannot rely on the continued presence of those individual staff members most familiar with extant datasets to provide necessary information to new users. It was clear that the documentation and archive of extant data bases and guidelines for future data bases was greatly needed.

Objectives: The goal of this project was to make data bases as accessible as possible and provide new users with the information necessary to use the data efficiently and effectively. This effort comprised two Phases. While Phase I focused on the development of archival procedures and lowest level documentation of selected Manpower Personnel Research (MPR) data, Phase II activity involves the actual full documentation and archival of MPR and Training priority data bases identified in Phase I.

Status: Completed (August 2, 1996-December 2, 1996)

Results: Documentation and archive standards and procedures for both extant and future data files were established. The feasibility of these standards has been tested through implementation of those standards, particularly in the area of baseline documentation.

Bibliography:

DiFazio, A.S., & Young, W. Y. (1997). Documentation and archival of selected ARI data bases: Final data base documentation standards for extant datasets (FR-EADD-97-05). Alexandria, VA: Human Resources Research Organization.

DiFazio, A.S., & Young, W. Y. (1997). Documentation and archival of selected ARI data bases: Final data documentation and archival policy (FR-EADD-97-06). Alexandria, VA: Human Resources Research Organization.

DiFazio, A.S., & Young, W. Y. (1997). Documentation and archival of selected ARI data bases: Final project summary report - Phase I (FR-EADD-97-07). Alexandria, VA: Human Resources Research Organization.

Products:

Planned Documents and Products:

DO# 0052	Title: Modeling the Individual Enlistment Decision - Phase II
Program Area QR _____ AOS _____ MT __X__	DO-COR: Dr. Peter Legree DO-ACOR: Project Director: Dr. Paul Sticha

DO Summary

Problem: The Office of the Deputy Chief of Staff for Personnel asked the U.S. Army Research Institute (ARI) to identify and evaluate factors influencing the enlistment decision and the propensity to serve in the military. Existing data bases have been primarily developed for other reasons (e.g., to track population trends) and are of limited use in developing a general model of factors influencing the enlistment decision or the propensity for military service. Additional data are required to address and quantify the role of factors that may influence the decision to join the military.

Objectives: This delivery order continues the effort begun in Phase I (DO# 0032) of this effort. The primary objectives of this effort are to refine measures of enlistment propensity to increase the accuracy of their predictions, to develop improved measures of constructs to segment the youth population, and to develop alternative models describing the enlistment decision process and the factors that influence it. The objectives of this phase are to test the survey developed in Phase I using a probability sample of 16-21 year old males, and to conduct additional analyses of propensity and enlistment data.

Status: Ongoing (August 2, 1996 - December 31, 1998)

Results: The survey developed in Phase I of this effort is currently being given to a sample of 2,000 male youth. The results of this survey identify variables that can predict enlistment propensity, or can be used to segment the youth population. The most useful survey components may be implemented, either as a part of a larger survey, such as the Youth Attitude Tracking Study (YATS), or as a stand-alone instrument.

Bibliography:

Who Serves in the All-Volunteer Force? Correlates of Propensity and Enlistment in the United States Armed Forces. The University of Michigan (December 1997).

Products:

Planned Documents and Products:

Predictors of Propensity Technical Report.

DO# 0053	**Title:** Quality Assurance Monitoring and Assessment System for the DoD Personnel Services and Support Outsourcing Contract
Program Area **QR** _____ **AOS** _____ **MT** __X__	**DO-COR:** Ms. Sue Harvey, PERSCOM **DO-ACOR:** **Project Director:** Dr. Janice Laurence

DO Summary

Problem: The Total Army Transition Division (TATD) is undergoing reorganization, stepped up privatization efforts, and expansion of contractor-provided services; therefore a revamped quality assurance (QA) system is required to realize promised efficiencies.

Objectives: The QA system must ensure a fair and sound basis for tracking and evaluating TATD contractor(s) in terms of the quality of services provided to clients. The effectiveness of program components must also be addressed. TATD must be able to respond to monitoring agencies regarding the quality, performance, and cost effectiveness of transition services.

Status: Ongoing (August 1996 - August 15, 1998)

Results: An organizational audit was conducted, source selection training was completed as was a needs assessment. Promising organizational reporting procedures have been identified and qualitative measures are being developed.

Bibliography:

Naughton, J.A. (1997, January). A quality assurance framework for service organizations (Interim report). Alexandria, VA: Human Resources Research Organization

Products: Briefings, source selection training materials, TATD staff position descriptions, Quality Assurance System package.

Planned Documents and Products:

Final Report. Delivery Order 0053. [Final Delivery Order Report]

DO# 0054	Title: Modification of the Computerized Adaptive Screening Test (CAST) for Use by Recruiters in the Military Services
Program Area QR __X__ AOS _____ MT _____	DO-COR: Ms. Frances Grafton DO-ACOR: Project Director: Dr. James McBride

DO Summary

Problem: A Memorandum for Record was signed in May 1996 by ARI and the Joint Recruiting Information Support Systems (JRISS) to support revisions to the Computerized Adaptive Screening Test (CAST). These revisions are intended to support the diverse requirements of the various services as they adopt the CAST as an integral part of their recruiting efforts.

Objectives: The objective of this effort was to modify the current version of CAST to better fulfill recruiter needs in all services.

Status: Completed (September 4, 1996-July 1997)

Results: CAST Version 5 was developed and delivered to JRISS, along with a Users' Guide and final report. Unlike previous versions of CAST, CAST 5 is a windows-based application. Modified features include psychometric changes to improve prediction at critical points and item selection procedures. The new CAST also has an enhanced appearance and more extensive security features compared to previous versions.

Bibliography:

McBride, J.R., & Cooper, R.R. (1997). Modification of the Computerized Adaptive Screening Test (CAST) for Use by Recruiters in all Military Services (Final Technical Report). Alexandria, VA: Human Resources Research Organization.

Products:

CAST 5 software and users' guide

Planned Documents and Products:

DO# 0055	Title: Multinational Force and Observers (MFO) Follow-Up Surveys for Soldiers and Spouses
Program Area QR _____ AOS __X__ MT _____	DO-COR: Dr. Bruce Bell DO-ACOR: Project Director: Dr. Peter Ramsberger

DO Summary

Problem: The Camp David Accords of 1979 included a requirement for a Multinational Force and Observer team to monitor terms of the agreement. Since 1982, the United States has supplied soldiers for this mission. The 28th rotation of troops included a U.S. Army experiment to determine the feasibility and desirability of having Reserve Component forces make up some or all of the American contingent. Data are needed to determine the full impact of this strategy. For this reason, ARI began collecting such data on/from these soldiers prior to their deployment, and continued doing so during and after their mission. Unfortunately, tracking those who participated following their return to the U.S. and obtaining their responses to the survey proved problematic. Response rates to the post-mission surveys were so low as to call into question the validity of the results obtained.

Objectives: To locate and interview a statistically reliable sample of RC MFO participants regarding perceptions of their effectiveness, the impact of the deployment on their personal and family lives, and other relevant issues.

Status: Completed (September 25, 1996 - June 30, 1997)

Results: The data collection efforts were completed in April 1997. Overall, 438 interviews were completed (336 soldiers, 102 spouses). A review of administrative information shows that completed interviews averaged about 21 minutes for soldiers and 22 minutes for spouses. Only nine respondents (four soldiers, five spouses) refused to participate in the study once they were initially reached by telephone. A total of 95 soldiers (18.9%) remained unlocatable at the conclusion of the data collection period.

Bibliography: Rauch, H. J., Becher, D., & Lang, V. (1997). Multinational Force and Observers (MFO) telephone interview follow-up survey methods. Rockville, MD: Westat.

Products: A soldier and spouse database were delivered in SPSS analytic file format.

Planned Documents and Products:

DO# 0056	Title: PERSTEMPO Impact Study
Program Area QR ___X___ AOS _____ MT _____	DO-COR: Dr. Paul Gade DO-ACOR: Project Director: Dr. Peter Ramsberger

DO Summary

Problem: The United States Special Operations Command (USSOCOM) is concerned that heightened demands on SOF in the form of new missions and/or lengthy deployments may have detrimental effects on morale, families, professional development, training, retention, and the readiness of the force. Decision makers need information about the impact of Personnel Tempo (PERSTEMPO) on SOF so that steps can be taken to mitigate any negative effects that might result.

Objectives: This survey is being conducted to assess the effects of PERSTEMPO, identify the source(s) of negative impacts, and provide input as to how such impacts can be lessened. These data will form a baseline against which future efforts of this type can be compared.

Status: Ongoing (March 14, 1997-July 24, 1998)

Results:

Bibliography:

Products:

Planned Documents and Products:
Final Report. Delivery Order 0056. [Final Delivery Order Report]

DO# 0057	Title: Documentation and Archival of Selected ARI Data Bases, Phase II
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. Ron Tiggle DO-ACOR: Project Director: Ms. Ani DiFazio

DO Summary

Problem: The purpose of Phase II of this effort is to apply the documentation and archive standards developed in Phase I of this project to extant Army Research Institute (ARI) Manpower Personnel Research (MPR) and Training datasets. To date, there have been no formal procedures or guidelines for the documentation and archival of the numerous data bases that have been developed by or for ARI since 1975. As a result, critical information needed to access and use data - from data base configuration issues to the actual physical location of the data - have been often lost or unavailable to new data base users. As ARI continues to downsize, it cannot rely on those individual staff members currently most familiar with extant datasets to provide necessary information to new users. It is clear that the documentation and archival of extant datasets is greatly needed.

Objectives: The goal of this project is to preserve datasets and provide new users with the information necessary to use the data efficiently and effectively. Phase II activity involves the implementation of documentation standards developed in Phase I of this effort.

Status: Ongoing (April 2, 1997-June 30, 1998)

Results:

Bibliography:

Products:

Planned Documents and Products:
Final Report. Delivery Order 0057. [Final Delivery Order Report]

DO# 0058	Title: Support for Soldier Assessment and Selection: Phase III
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. Michael Sanders DO-ACOR: Project Director: Dr. Deirdre Knapp/Mr. Adrien Lussier
DO Summary	
Problem: This project was undertaken at the request of the Selection and Assessment Commander of the Special Operations Forces. It was the third phase of a multiphased effort to address concerns about which recruiting and selection techniques should be used to create the most efficient and effective programs.	
Objectives: The objective of this effort was to collect and analyze data on the effectiveness of existing recruiting, selection, and training techniques. The effort helped to establish the basis for empirically derived recommendations for future programs.	
Status: Completed (April 7, 1997-April 24, 1998)	
Results: Databases including information on several classes of entrants were constructed and analyzed.	
Bibliography:	
Products:	
Planned Documents and Products:	

DO# 0059	**Title:** Soldier Selection Database Maintenance - Phase III
Program Area **QR** ___X___ **AOS** _____ **MT** _____	**DO-COR:** Ms. Frances Grafton **DO-ACOR:** **Project Director:** Dr. Rodney McCloy/Dr. Scott Oppler

DO Summary

Problem: Two Memoranda of Agreement between the Director of Military Personnel Management, Deputy Chief of Staff for Personnel and the Army Research Institute (1985, 1992) outline the requirement for a research and development effort leading to improvements in the Army's current enlisted personnel selection and classification system. This effort was executed principally through two research efforts, Project A and Building the Career Force. The data bases created for these two projects are unique for their coverage of soldier performance and aptitudes, and are needed continuously to address a variety of manpower and personnel issues.

Objectives: The objective of this task is to continue maintenance activities, begun in COMPRS Delivery Order 0028, pertaining to these data bases so that these needs can continue to be met. Maintaining the Project A and Career Force data bases is important so that critical manpower and personnel research questions can be addressed.

Status: Ongoing (May 19, 1997-June 18, 1998)

Results:

Bibliography:

Products:

Planned Documents and Products:
Final Report. Delivery Order 0059. [Final Delivery Order Report]

DO# 0060	Title: PC-Based Automated Command Climate Survey
Program Area QR _____ AOS __X__ MT _____	DO-COR: Dr. Morris Peterson DO-ACOR: Project Director: Dr. Deirdre Knapp/Dr. Potluri Raol

DO Summary

Problem: The Deputy Chief of Staff for Personnel (DCPSER) requested that the U.S. Army Research Institute (ARI) develop a personal computer (PC)-based survey for a unit that would be programmed to present survey questions, record the responses of soldiers, analyze the responses, and report the results to the unit conducting the survey. All of the data collection, analysis, and reporting will be conducted at the site of each unit. The survey will provide unit commanders with high quality command climate survey data--quickly, efficiently and effectively. The automated configuration will permit unit commanders to meet the requirements of the regulation with a minimal commitment of time and personnel.

Objective: The objective of the study was to develop a PC-based automated survey package which can be implemented at the unit level without outside assistance.

Status: Completed (June 4, 1997 - September 30, 1997)

Results: Automated Command Climate Survey software was developed and tested. The documentation package includes instructions (both hard copy and computer-based Read Me/Help files) for preparing and administering surveys.

Bibliography:

Products: Final software and documentation packages

Planned Documents and Products:

DO# 0061	Title: Update of the U.S. Army Research Institute's Officer and Enlisted Data Bases for 1995 and 1996
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. Peter Greenston DO-ACOR: Project Director: Ms. Lori Ramsey

DO Summary

Problem: ARI required an update to a group of U.S. Army personnel data bases that could be used as a ready source of career history information for analysis of career path issues such as attrition, retention, and promotion. In addition, the data bases could serve as a complement to survey data collected to study leader development, organizational commitment, and other issues. In order to satisfy these research requirements, it was necessary to collect and add current personnel and training data to the Officer Longitudinal Research Data Base (OLRDB), the Officer Educational Testing Data Base (OSETDB), and the Enlisted Panel Research Data Base (EPRDB).

Objectives: The objective of this project was to collect annual source data files for 1995 and 1996 and to update the OLRDB and the OSETDB with officer personnel data maintained by Personnel Command (PERSCOM); and to update the EPRDB with enlisted personnel data maintained by the Defense Manpower Center (DMDC).

Status: Completed (June 9, 1997 – May 9, 1998)

Results: A 1995 and a 1996 version of the OLRDB Longitudinal, the OLRDB Core, and the OSETDB was developed. A 1995-1996 data base was created for the EPRDB.

Bibliography:

Ramsey, L. J., & Fertig, K. L. (1998). Update of the U.S. Army Research Institute's Officer Data Bases for 1995 and 1996 (HumRRO FR-EADD-98-21a). Alexandria, VA: Human Resources Research Organization.

Ramsey, L. J., & Fertig, K. L. (1998). Update of the U.S. Army Research Institute's Enlisted Panel Research Data Base for 1995 and 1996 (HumRRO FR-EADD-98-21b). Alexandria, VA: Human Resources Research Organization.

Products:

Planned Documents and Products:

DO# 0062	**Title:** Development & Assessment of a Prototype Database for Tracking First Tour Non-Prior Service Regular Army Attrition
Program Area **QR** _____ **AOS** __X__ **MT** _____	**DO-COR:** Ms. Frances Grafton **DO-ACOR:** **Project Director:** Ms. Ani DiFazio/Ms. Winnie Young

DO Summary

Problem: In 1996, the Office of the Assistant Secretary of the Army, Manpower and Reserve Affairs asked the U.S. Army Research Institute to draft a broad-based proposal for carrying out a comprehensive, integrated research program examining the causes of enlisted first-tour Army attrition. The First Tour Attrition Project was undertaken in response to ARI's request to develop and assess a prototype database for tracking first-term attrition and to establish a methodology for developing a comprehensive database for conducting attrition research.

Objectives: The objectives of this effort were to (a) develop a prototype database for tracking first-term non-prior service attrition for the cohort of FY92 enlisted accessions, (b) document the methodology used in developing the database, and (c) assess the completeness and accuracy of the database.

Status: Completed (July 24, 1997 - November 30, 1997)

Results: The First Tour Attrition (FTA) Database developed for this effort contains extracted and summarized data from five operational military data sources:

- FY92 DMDC Cohort Database
- FY91 and FY92 Operational Recruiter Master File (ORMF) Database
- FY91 and FY92 Active Army Recruit Database (AARCRT)
- FY92-FY96 Army Training Reporting Record System (ATRRS) Database
- FY92-FY96 Enlisted Master File (EMF)

Data for a total of 83,419 soldiers and 655 variables are contained in the FTA. To preserve the privacy of the enlistees in the database, an encryption algorithm for generating Project Identification Numbers from Social Security Numbers was developed. Due to the vast amount of confidential data amassed in this effort, data security was a major concern. Therefore, access to the final database has been restricted to the DOCOR and the alternate DOCOR by implementing IBM's Resource Access Control Facility (RACF).

A number of technical difficulties were encountered in building the FTA. Many involved insufficient documentation of the source databases, inaccuracies in source variables, difficulties in arriving at an acceptable operational definition of DEP losses. Also, an additional data source not specified in the original Statement of Task, but deemed necessary for determining the accuracy of the database, was utilized. All technical issues were resolved based on in-depth discussions with the DOCOR. A number of preliminary analyses were conducted on the FTA based on requests from the DOCOR. In addition, analyses were conducted to cross-validate variables in the database. Due to the short duration of the effort, further testing of the database may be required to ensure its accuracy.

Bibliography:

Young, W. (1997). Development and Assessment of a Prototype Database for Tracking First Tour Non-Prior Service Regular Army Attrition (HumRRO Final Report FR-EADD-98-04). Alexandria, VA: Human Resources Research Organization.

Products:

Planned Documents and Products:

DO# 0063	**Title:** Determining and Documenting the Functional Requirements for Operational-Enlisted Personnel Allocation System (EPAS)
Program Area **QR** ___X___ **AOS** _____ **MT** _____	**DO-COR:** Dr. Peter M. Greenston **DO-ACOR:** **Project Director:** Dr. Mary Ann Lightfoot

DO Summary

Problem: EPAS is a software system that was designed (through a series of Army Research Institute (ARI) projects) to improve the quality of the Army's REQUEST recruit allocation system. Operationally, EPAS was envisioned either as a subsystem within REQUEST or as an integrated function in REQUEST. In either case it would be invisible to guidance counselors and applicants. The development of the initial PC-EPAS prototype was completed in April, 1995, as part of an earlier understanding with the DCSPER to demonstrate the concept and power of optimized job-recruit matching to Army management. Subsequently, additional work was conducted to enhance the formulation of the initial prototype PC-EPAS through ARI projects that addressed improved performance metrics, the formation of classification efficient job families and Military Occupational Specialty (MOS) clusters, and the creation of a sound applicant subgroup structure.

In March 1997, the DCSPER concurred with ARI recommendations that efforts be directed to moving the PC-EPAS capability toward operational implementation. In the present project ARI seeks to move toward implementation by improving the PC-EPAS prototype through developing the best set of operational requirement specifications, capturing as many features of the production environment as practical, and preparing a functional description (FD) of the software.

Objectives: This project had the following six objectives. The first was to revise and document the procedures for constructing applicant subgroups, which categorize the input accession data according to ASVAB score profiles and Army missions, and to develop a method for monitoring changes in the Army's annual applicant population. The second objective was to modify the EPAS model specifications to include the results of the most recent classification research, and to provide the capability to use the most realistic data to model the Army's operational recruiting environment and policies. This objective also included modeling the REQUEST list of candidate assignments, screening the list according to EPAS optimal guidance (E.G.), and producing a merged E.G.-REQUEST list of candidate assignments that is an improvement over the Army's present REQUEST list. The third project objective was to conduct a large series of PC-based simulations to test the efficacy of the revised PC-EPAS prototype for operational implementation. The specific purpose of the simulations was to test the model specifications and to evaluate the utility of PC-EPAS for improving the Army's current recruit-MOS matching system implemented by REQUEST. The fourth objective was to conduct research and analysis in close coordination with the U.S. Army Recruiting Command (USAREC) on outstanding issues in the report on "Interface Design Considerations in the Army Prototype PC-EPAS." The fifth objective was to prepare the PC-EPAS FD. And the last objective was to conduct an independent review of the FD.

Status: Ongoing (August 14, 1997 - June 15, 1998) - note that this date is being extended.

Results:

Bibliography:

Products: Revised PC-EPAS software and documentation.

Planned Documents and Products: A final report that includes five sections, each of which is a report summarizing the results of Tasks 1 through 5. The results of Task 6 will be incorporated into the Task 5 report.

DO# 0064	Title: Enlisted Finance, Chaplain, and Aviation MOS Occupational Analysis Study
Program Area QR _____ AOS _____ MT __X__	DO-COR: Mr. William Badey DO-ACOR: Project Director: Dr. Deirdre Knapp

DO Summary

Problem: Army doctrine requires constant update to the task responsibilities of enlisted Military Occupational Specialty (MOS). These tasks are considered critical to both individual and unit survival on the battlefield. HQ, TRADOC guidance requires an annual evaluation. The occupations to be studied (which were changed from the original plan) are 74C (Telecommunications Operator-Maintainer), 71M (Chaplain Assistant) and Branch 56 (Chaplains).

Objectives: The objectives of this effort are to (1) develop study plans and objectives, (2) develop survey data collection instruments, (3) create study databases, (4) analyze the data, and (5) brief the findings of the surveys. The field distribution and data collection phase will be handled by ARI.

Status: Ongoing (September 10, 1997 - September 30, 1998)

Results:

Bibliography:

Products:

Planned Documents and Products:
Raosoft-based surveys for 74C, Branch 56, and 71M
Briefing charts
Final report

DO# 0065	Title: Study of Enlisted Common Task (CT) Training
Program Area QR ___X___ AOS _____ MT _____	DO-COR: Mr. William T. Badey DO-ACOR: Project Director: Dr. William J. Strickland

DO Summary

Problem: Army doctrine requires constant update to those common soldier tasks at which every enlisted person is required to be proficient. These common tasks (CT) are critical to individual and unit survival on the battlefield. Enlisted CT are trained throughout a soldier's career in the Primary Leadership Development Course (PLDC), Basic NCO Course (BNCOC), Advanced NCO Course (ANCOC), First Sergeant Course, and the Battle Staff Operations Course. Headquarters, Training and Doctrine Command (TRADOC) guidance to the U.S. Army Sergeants Major Academy (USASMA) requires an annual evaluation of CT.

Objectives: The collection of the necessary data both to define common tasks and to train them at the proper points in a soldier's career is the purpose of this effort. This 1-year-long effort includes the development of survey plans and objectives, Computer-Assisted Surveys (CAS), and paper-based questionnaires. In addition, data collection, accounting and quality control, development of databases, generation of statistical reports, analysis of findings, and preparing written and oral summaries of the results are included in the effort. Finally, this effort includes a detailed task analysis of the Battle Staff NCO (BSNCO) position in both analog and digital Tactical operations Centers. This task analysis will form the basis for recommending changes to the BSNCO course at USASMA to include training for BSNCOs bound for digital units.

Status: Ongoing (September 10, 1997 - November 30, 1998)

Results: Based on survey results, recommendations will be made regarding common soldier task requirements for skill level one entry level training (Basic Training and One Station Unit Training), PLDC, BNCOC, ANCOC, First Sergeant and the Battle Staff Operations courses with recommendations on follow-up training or to sustain training needs. Common soldier task training requirements at the grade of Sergeant First Class (SFC) and Master Sergeant (MSG) will also be identified. The grade level at which each task should be taught will be identified, with a focus on the downward migration of tasks to a lower level than currently taught, and the movement of tasks from the Battle Staff and First Sergeants Courses to ANCOC and/or BNCOC will be examined. The BSNCO position from both analog and digital perspectives, will be examined and USASMA will be provided with task analysis data sufficient to allow USASMA course developers to modify the BSNCO course to include digital tasks.

Bibliography:

Products: An automated survey to collect data about enlisted common soldier tasks performed by a sample of 20,000 enlisted soldiers. An automated survey to collect recommendations about training requirements for enlisted common soldier tasks from a sample of 400 supervisors of enlisted soldiers. A task analysis of the Battle Staff NCO position.

Planned Documents and Products: A written report documenting the project, including recommendations on which common soldier tasks should be trained by grade and skill level will be produced. In addition, all survey developmental notes and automated copies of the initial database, final database, and primary data analyses will be provided.

DO# 0066	Title: Analysis and Reporting Results of 1996 Survey of Officer Careers (SOC), Phase II
Program Area QR _____ AOS __X__ MT _____	DO-COR: Ms. June T. Jones DO-ACOR: Project Director: Dr. Gina J. Medsker

DO Summary

Problem: The purpose of this effort is to analyze the data from the Survey on Officer Careers (SOC) collected by ARI. The SOC grew out of ARI's Longitudinal Research on Officer Careers (LROC) surveys, first administered in 1988. The SOC, including the longitudinal subsample which completed at least one of the LROC surveys, is used to identify and report on the current status and trends on officers' attitudes about their careers. The findings are important for helping the U.S. Army understand what happens to officers during their careers, and how officers attitudes and career plans change. Trend analysis reports on the effects of the drawdown, differential changes in attitudes among male and female and black and white officers, differential changes in attitudes among Combat Arms, Combat Support, and Combat Service Support branches, and longitudinal baselines of career attitudes prior to changes from Officer Personnel Management System XXI (OPMS XXI) are to be produced. Two longitudinal event history analysis reports on the relationships of officers' attitudes and backgrounds to their retention and attrition behavior will be produced.

Objectives: The objectives of Phase II are to (a) produce a series of six study reports and four briefings to facilitate distribution of SOC findings and (b) provide a fully documented database for additional analysis of issues regarding officers careers.

Status: Ongoing (September 26, 1997 - June 25, 1997). [to be extended]

Results:

Bibliography:

Changes in Attitudes toward the Army among Racial and Gender Groups (1998). ARI Special Report. Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

Products:

Planned Documents and Products: Five additional special reports and four briefings.

DO# 0067	Title: Modeling Military Careers
Program Area QR _____ AOS _____ MT __X__	DO-COR: Dr. Michael Drillings DO-ACOR: Project Director: Dr. Paul Sticha

DO Summary

Problem: The Office of the Deputy Chief of Staff for Personnel tasked the U.S. Army Research Institute (ARI) to identify and evaluate factors that influence military enlistment propensity, the enlistment decision, and military career progression. Previous work with Monitoring the Future (MtF) data focused on enlistment propensity and demonstrated the usefulness of these data for clarifying issues related to understanding the enlistment decision. The MtF data follows panels of individuals. This unique characteristic may prove useful in understanding and modeling life course events associated with either pursuing a military career or attriting from the military. Analyses of MtF data to compare the profiles of individuals who attrit and who choose to pursue a military career are needed.

Objectives: The primary objective of this research is to use MtF data for three purposes: (a) to identify life course events, attitudes, and activities that distinguish those youth who enter the military within the first two years after high school and those youth who enter three to six years after high school; (b) to identify background characteristics and other relevant variables that are associated with either military attrition or career military commitment; and (c) to address the issue of ideological and demographic representativeness of those serving in the military, and to distinguish between self-selection and socialization as alternative explanations for ideological differences between those who serve for short periods of time, those who serve for long periods of time, and those who do not serve.

Status: Ongoing (September 29, 1997 - September 30, 1998)

Results: The first portion of the analysis examined the effects of military service on rates of licit and illicit drug use. These analyses indicate that illicit drug use declined more among military recruits than their civilian counterparts. Further analyses of male recruits indicated that routine drug testing and tobacco bans reduced the prevalence of these substances in this group. The second portion of the analyses, currently ongoing, examines the political attitudes of those who join the military after high school compared with those who do not.

Bibliography:

Products:

Planned Documents and Products:
Final Report. Delivery Order 0067. [Final Delivery Order Report]

DO# 0068	**Title:** A-76 Commercial Activities (CA) Study of the Army Career and Alumni Program's (ACAP) Transition Assistance Office (TAO) Services
Program Area **QR** _____ **AOS** _____ **MT** __X__	**DO-COR:** Ms. Susan J. Harvey, PERSCOM **DO-ACOR:** **Project Director:** Dr. Janice Laurence

DO Summary

Problem: The Office of Management and Budget (OMB) requested that ACAP perform a cost comparison study of 12 ACAP sites that have not been fully converted to contract. This study would fulfill compliance with OMB-A76 guideline for conversion of commercial activities.

Objectives: Perform a cost comparison study to support OMB-A76 requirements.

Status: Ongoing (September 1997 - June 30, 1998)

Results: A most efficient organization (MEO) plan was devised as was a management study and a performance work statement (PWS). ACAP personnel affected by conversion to contract were interviewed. Competitive cost comparisons are being finalized.

Bibliography:

Dall, T.M., Hogan, P.F., & Wetzel, E.(1998, January). Findings from the Army Career and Alumni Program (ACAP) Transition Assistance Office (TAO) Management Study (Interim report). Alexandria, VA: Human Resources Research Organization

Products: MEO plan, management study, PWS, briefings.

Planned Documents and Products:

Final Report. Delivery Order 0068. [Final Delivery Order Report]

DO# 0069	Title: Military Vehicle Operator Selection Project
Program Area QR _____ AOS __X__ MT _____	DO-COR: Dr. Peter Legree DO-ACOR: Project Director: Dr. Gina Medsker

DO Summary

Problem: The Army Chief of Staff, through the U.S. Army Training and Doctrine Command (TRADOC), requested that ARI conduct a study to evaluate factors and variables that could identify individuals who are more likely to be involved in operator-related vehicle accidents. Research literature on factors related to accident involvement suggest that temperament characteristics, such as thrill seeking and dependability, and aptitudes, such as perceptual and psychomotor abilities, can be used to help determine which individuals are most at risk of causing an accident. This information can be used to identify which personnel should not be placed in positions involving extensive driving. Knowledge of relationships between transient variables (e.g., stress, sleep deprivation, driving conditions) and accidents can be used to inform soldiers of accident-related factors, counsel soldiers who have greater susceptibility to accident risk, and provide leadership to influence soldiers to reduce risks. The majority of accidents among Army personnel soldiers occur in privately owned vehicles (POVs) and among enlisted personnel.

Objectives: The objectives of the study are to identify (a) stable characteristics and aptitudes that can predict accident involvement and (b) transient variables and events that are associated with vehicular accidents. This research will study accidents occurring in military vehicles, as well as in privately owned vehicles. Accidents in both tracked and wheeled vehicles will be included in analyses.

Status: Ongoing (December 12, 1997-September 30, 1998)

Results: Two studies have been planned to complete this project. The first study is based on archival predictor data from Project A and the Enlisted Master File (EMF) and on archival accident criterion data from the U.S. Army Safety Center (USASC). In the second study, new predictor data will be collected from currently enlisted soldiers and merged with EMF and USASC data.

Bibliography:

Products: Bibliography of literature review, description of database review, research plan, predictor and criterion instruments, and monthly reports.

Planned Documents and Products: A final briefing and report

DO# 0070	Title: Reserve Component Research: FY 2000-2004
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. Ruth Phelps DO-ACOR: Project Director: Dr. Deirdre Knapp

DO Summary

Problem: Reductions in Active Component (AC) budgets and end strength have caused the Army to increase reliance on the Reserve Component (RC) to meet America's missions throughout the world. However at the same time, the RC has also incurred resource reductions, increasing the already difficult job of part-time citizen soldiers to maintain readiness and deploy for overseas missions. In an attempt to capitalize on both AC and RC strengths and at the same time cope with smaller budgets, the Army leadership has called for testing new concepts to increase both the number of RC deployments and the amount of time AC and RC soldiers/units train and deploy together. Thus research is needed to determine limits and test ways to increase the use of RC.

Objectives: The purpose of this project is to provide the groundwork for a new research and development (R&D) program to determine the effect of new policies, training systems and increased demands on RC readiness. This will be accomplished by preparing presentations of the R&D plan for the 2000-2004 timeframe for senior military audiences. Specific project objectives are to (a) gather and document background data for assessing RC personnel and training needs, and (b) develop a briefing summarizing the R&D plan.

Status: Completed (December 31, 1997 - April 17, 1998)

Results: Following a comprehensive search for sources, data pertaining to readiness were collected from a variety of Army and DoD sources. These data were documented and provided to ARI for use in briefings on the need for RC research. Project staff also worked with ARI to refine and finalize general officer-level briefing materials.

Bibliography:

Products:
Powerpoint briefing charts.
Readiness data

Planned Documents and Products:

DO# 0071	**Title:** Operation Joint Endeavor (OJE) Final Report
Program Area **QR** X **AOS** **MT**	**DO-COR:** Dr. Alma Steinberg **DO-ACOR:** **Project Director:** Dr. Deirdre Knapp/Dr. Diane Foley

DO Summary

Problem: At the start of Operation Joint Endeavor (OJE), the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) was asked by the Deputy Chief of Staff for Personnel, HQDA, to coordinate "people" research related to OJE. Participants in the coordinated effort, in addition to ARI, included the Walter Reed Army Institute of Research (WRAIR) and the U.S. Army Medical Research Unit-Europe (USAMRU-E).

Objectives: The overall objective of this effort is to prepare a final report, for a military audience, which briefly describes the OJE project and the major ARI findings. Specific objectives are to (a) describe the overall OJE coordinated project and related products thus far, (b) analyze and summarize the major soldier findings, (c) summarize the family findings from existing reports, (d) prepare appropriate graphics, and (e) work with layout contractor to prepare a final copy of the report for printing.

Status: Ongoing (May 12, 1998 - September 30, 1998)

Results:

Bibliography:

Products:

Planned Documents and Products:
Camera-ready final report

DO# 0072	Title: Soldier Characteristics for the 21st Century, Part I: Methodology
Program Area QR ___X___ AOS _____ MT _____	DO-COR: Dr. Elizabeth Brady DO-ACOR: Project Director: Dr. Deirdre Knapp

DO Summary

Problem: On 21 Mar 97, MG Arthur T. Dean, Director of Military Personnel Management, Deputy Chief of Staff for Personnel, required that the Army Research Institute (ARI) "immediately undertake a 'quick study' to determine the desired characteristics, qualities and aptitudes for the enlistee of the 21st century." ARI responded with a two-phase program known as "Soldier21." The first phase involved a review and summary of available information, supplemented by a "target of opportunity" data collection. The second phase will involve collection of new data. The first phase was completed and reported to MG Dean on 12 Jan 98.

ARI has also initiated, again under the sponsorship of MG Dean, a project known as 21st Century NCOs (NCO21). The objectives of this effort are to (1) determine the best indicators of future NCO performance, and (2) provide a foundation for linking 21st century promotion decisions to 21st century measures of performance and potential.

Objectives: The objectives of this effort are to (1) develop a methodology and research plan for identifying the required soldier characteristics to effectively perform the job of a first term enlisted soldier in the 21st century, and (2) determine how to optimize efficiency by merging elements of the execution of this methodology with the execution of the 21st Century NCOs methodology.

Status: Ongoing (May 27, 1998 - August 19, 1998)

Results:

Bibliography:

Products:

Planned Documents and Products:
Final report and research plan

DO# 0073	**Title:** An Assessment of the Values of New Recruits and the Joint Data Collection of Values and the Assessment of Individual Motivation (AIM)
Program Area **QR** ___X___ **AOS** _____ **MT** _____	**DO-COR:** Dr. Ronald B. Tiggle **DO-ACOR:** Dr. Paul Gade **Project Director:** Mr. Eric Wetzel

DO Summary

Problem: The senior leadership of the Army, to include the Chief of Staff, realize the important role values play in the Army. Values allow the operating norms and rules of the Army to become meaningful, stable, positive; and hence, capable of being internalized. In the past, the Army has collected data on the values of active duty soldiers; however, there is only limited knowledge of the values new recruits bring to the Army or their relationship to the seven core values--Loyalty, Duty, Respect, Selfless Service, Honor, Integrity, and Personal Courage--emphasized by the Army Leadership. In this effort, these core and other values will be assessed among entering Active Army recruits, so as to establish the basis for tracking soldier values from initial entry training through the first tour of duty.

Objectives: The objectives of this effort are to (a) conduct a survey on the values of new recruits during initial entry training at the six Army Reception Battalions--Fort Jackson, SC, Fort Leonard Wood, MO, Fort Sill, Ok, Fort Benning, GA, Fort McClellan, AL, and Fort Knox, KY; (b) establish a data base of new soldier values; (c) establish a system for tracking soldiers' values from the beginning of initial entry training through the first tour of duty; and (d) administer both the current and experimental versions of the Assessment of Individual Motivation (AIM).

Status: Ongoing (June 4, 1998 - June 3, 1999)

Results:

Bibliography:

Products:

Planned Documents and Products: Literature Review: Measuring Values in Applied Settings, 1998 Army Values Survey, SPSS Data Base of Results from the 1998 Army Values Survey, Briefing to DCSPER, Plan for Cross-Sectional Time Series Collection of Values Data, and Final Report

DO# 0074	Title: PC-Based Automated Command Climate Survey for TDA Units
Program Area QR _____ AOS __X__ MT _____	DO-COR: Dr. Morris Peterson DO-ACOR: Project Director: Dr. Deirdre Knapp/Dr. Potluri Raol

DO Summary

Problem: The Deputy Chief of Staff for Personnel (DCSPER) has requested that the U.S. Army Research Institute (ARI) develop and test personal computer (PC)-based survey for TDA units. (TDA units are comprised of both soldiers and Department of the Army civilian employees; TO&E units are almost totally comprised of soldiers.) The survey should be programmed to present survey questions, record the responses of soldiers, analyze the responses, and report the results to the unit conducting the survey. All of the data collection, analysis, and reporting will be conducted at the site of each unit. The survey will provide unit commanders with high quality command climate survey data--quickly, efficiently and effectively. The automated configuration will permit TDA unit commanders to meet the requirements of the regulation with a minimal commitment of time and personnel.

Objectives: The objective of this R&D effort is to develop and test a survey instrument for assessing the command climate of TDA units. The survey will be PC-based and fully automated and will provide commanders of TDA units with an efficient and effective means of complying with the mandate incorporated in AR 600-20 (Army Command Policy) to assess the unit climate (including equal opportunity) upon assumption of command and annually thereafter.

Status: Ongoing (June 6, 1998 - June 4, 1999)

Results:

Bibliography:

Products:

Planned Documents and Products:
Final software and documentation

DO# 0075	**Title:** Pre-Implementation Research on the Assessment of Individual Motivation (AIM) Phase I: Item Development
Program Area **QR** X **AOS** _____ **MT** _____	**DO-COR:** Dr. Mark Young, ARI, 703/617-0334 **DO-ACOR:** Dr. Paul Gade, ARI, 703/617-8866 **Project Director:** Dr. Brian K. Waters

DO Summary

Problem: Over a decade of research has shown that motivational attributes are important predictors of both soldier attrition and "will do" performance. Significantly, these attributes are not being utilized in the Army's current selection program. Using measures of such attributes in selection has been problematic because they tend to be highly susceptible to the effects of faking and coaching. The Army has recently developed a new faking-resistant measure of motivational attributes, the Assessment of Individual Motivation (AIM). Preliminary analyses of AIM's validity as an attrition predictor suggest that it shows promise as a potential pre-enlistment screen for reducing attrition. Importantly, AIM appears to be more faking resistant than previous measures of the same motivational attributes.

Objectives: This contract effort has two primary objectives: (1) Develop three new alternate forms of AIM and (2) prepare all test forms, answer sheets, and pencils needed to begin the data collection portion of the research effort.

Status: Ongoing (June 9, 1998 - December 31, 1998)

Results:

Bibliography:

Products:

Planned Documents and Products: Final report, AIM parallel forms

DO# 00--	**Title:** ARI's Contributions to the All-Volunteer Force (AVF)
Program Area **QR** ___X___ **AOS** _____ **MT** _____	**DO-COR:** Dr. Zita Simutis, ARI **DO-ACOR:** **Project Director:** Dr. Janice Laurence
DO Summary	
Problem: To mark the 25th anniversary of the AVF, ARI requires the production of a short brochure highlighting ARI's work over the years in support of the Army.	
Objectives: The primary objectives of this effort are to: (a) determine appropriate topics for the AVF brochure through discussions with key stakeholders and review of ARI publications, (b) summarize ARI's contributions and write the brochure, (c) design the layout of the brochure and produce a mock-up, and (d) coordinate the production of the brochure through approved government channels.	
Status: Ongoing (June 1998 - August 30, 1998)	
Results: An outline for a 15 page brochure was devised. Relevant ARI documents are being assembled.	
Bibliography:	
Products:	
Planned Documents and Products: Mockup for a 15 page GPO printed brochure.	

DO# 00--	Title: A Pre-Analysis Fact-Finding Study of the Army Family Member Employment Program
Program Area QR ___X___ AOS _____ MT _____	DO-COR: Ms. Susan Harvey, PERSCOM DO-ACOR: Project Director: Dr. Janice Laurence

DO Summary

Problem: The Family Member Employment Assistance Program (FMEAP) is offered to the family members of active duty soldiers at about 112 different installations across the U.S. and overseas. The services provided are generally similar in nature to the job assistance services offered to transitioning soldiers and civilians. In March, 1997, the Chief of Staff of the Army requested that PERSCOM review the feasibility of incorporating the FMEAP function in the Army Career and Alumni Program.

Objectives: The objective of this study is to collect information regarding FMEAP to (1) decide if an OMB Circular A-76 cost comparison study should take place, (2) decide what type of study would be required, and (3) design the scope of the study.

Status: Ongoing (June 1998-December 1998)

Results:

Bibliography:

Products:

Planned Documents and Products:
Findings and recommendations documented in briefings and written reports.

DO# 00--	Title: Analyses and Models of PERSTEMPO
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. Ron Tiggle DO-ACOR: Project Director: Dr. Paul Sticha

DO Summary

Problem: The DCSPER and other senior Army leaders recognize the need to demonstrate the effects on Army personnel, if any, of the increased operational tempo in the Army that has occurred with downsizing and the assumption of peace operations deployments. To date, however, the Army has not been able to identify or develop adequate models of PERSTEMPO that would allow it to clearly identify PERSTEMPO effects so that it might establish an early warning system that would permit preventive actions.

Objectives: The purpose of this project is to (1) clarify definitions of PERSTEMPO, (2) identify PERSTEMPO indicators and sources of Army data consistent with PERSTEMPO measures, (3) identify/develop models for measuring PERSTEMPO and linking it to retention and attrition and/or other critical personnel or performance outcomes, and (4) evaluate the ability of the models to detect increased PERSTEMPO and predict its outcomes.

Status:

Results:

Bibliography:

Products:

Planned Documents and Products:
Briefings
Final report
Data files

DO# 00--	Title: Designing and Planning a Comprehensive Investigation of Enlisted Attrition across the First-Term LifeCycle
Program Area QR __X__ AOS _____ MT _____	DO-COR: Dr. Jacqueline Mottern DO-ACOR: Project Director: Dr. William Strickland

DO Summary

Problem: In 1996, the Office of the Assistant Secretary of the Army (Manpower and Reserve Affairs; ASA M&RA) asked the Army Research Institute (ARI) to draft a broad-based proposal for carrying out a comprehensive, integrated research program examining the causes of first-term Army enlisted attrition. In support of this long-term effort, ASA M&RA sponsored Phase I of a research program modeled after ARI's broad-based proposal. The objective of this initial phase was to develop and assess a prototype database for tracking first-term attrition.

The current project is Phase II of the broad-based attrition research program. The objective of Phase II is to design and plan the overall five- to six-year attrition research effort, and prepare instrumentation for the execution of this program.

Objectives: The objectives of this effort are to (1) design and plan the overall five- to six-year attrition research effort which incorporates both longitudinal and concurrent research design; (2) develop comprehensive sampling plans for both the longitudinal and concurrent research design; and (3) develop, field test, and gain approval for appropriate surveys, test instruments, and performance measures in preparation for the data collection phase (i.e., Phase III and beyond).

Status: Ongoing (June 1998-December 1998)

Results:

Bibliography:

Products:

Planned Documents and Products:
Final report

Appendix A
ARI COMPRS Program Descriptions

Quick Reaction (QR) Program

Applicable Areas. The QR program is intended to give ARI a quick-response capability to perform short-term research or studies and analysis dealing with manpower and personnel issues for which the necessary in-house capability is not available. The QR Program may only be used for the procurement of non-personal services to perform the tasks specified in the DO, subject to the limitations set forth below.

Conditions. Because this program is intended to resolve manpower and personnel issues that can be studied in a short time, the following conditions will normally apply:

- Each of the QR Program DOs shall be completed within the period of time specified in the DO, with the maximum allowable completion normally being within a 12-month period from the date of the DO.

- Each task of the DO shall be completed by HumRRO or its subcontractor within the total time allocated and a final report prepared and delivered.

- Unless otherwise stated in the DO, the tasks to be performed by the Contractor shall include a meeting with ARI at Alexandria, Virginia or at an ARI Field Unit at the start of, and at the completion of, each of the QR Program DOs.

Attitude and Opinion Survey (AOS) Program

Applicable Areas. The AOS program is intended to give ARI the ability to conduct surveys to provide information for accession and force management decision-making. This information can only be obtained through surveys of the target populations and may require updating due to changing population dynamics and attitudes in the various population segments.

Conditions. Because this program is intended to provide information quickly to resolve manpower and personnel issues, the following conditions shall normally apply:

- Each of the AOS efforts shall be completed within the period of time specified in the DO, with the maximum allowable completion normally being within a 12-month period of the date of the DO or an 18-month period if Office of Management and Budget (OMB) approval is required. Each AOS survey shall be performed using standard random sampling procedures or other appropriate sampling techniques.

- The tasks written by the Government in each AOS Program SOT shall include a statement of the target group for the survey. A target group may be defined as, for example, all males, age 16-21 years old, in high school or graduated, and having positive propensity to enlist in any military service. The Contractor shall prepare as part of its response to the SOT, the necessary screening and sampling methodologies to assure that the target group requirements are met.

- If specified in the SOT and subsequent DO, the Contractor shall prepare a survey instrument. The Government may, at its discretion, construct a proposed survey instrument and submit it to the Contractor for review and recommended changes. The approved survey instrument shall be administered by the Contractor to the target population, or a sample thereof. All reproduction, survey administration, analysis, and report generation costs shall be included in the Contractor's RFDO for an AOS survey.

- The ability to conduct surveys under the AOS program may depend on ARI obtaining OMB approval to collect the information from the public. If OMB approval is required, and if such approval is not obtained, the survey shall not be conducted. The Contractor will be notified by the Government of the status of OMB approval. Surveys involving military personnel do not require OMB approval. ARI will make the determination of approval authority prior to an SOT being issued and will clearly state in the SOT if survey administration is contingent upon any other approval authority.

- When the final survey instrument is received by the Government, it may be necessary for the DO COR to submit the survey instrument to OMB for approval. The approval process may require from four to six months. Part of the OMB submission is a detailed description of the sampling plan, including burden hours, sampling methodology, non-response analysis, etc. The Contractor shall prepare the necessary documentation in accordance with the SOT and DO requirements and submit it to the DO COR who will submit it through agency channels.

- Each DO task shall be completed by the Contractor within the time allocated and a final report delivered. The final report shall contain copies of any appropriate verbatim responses of survey participants. Unless otherwise stated in the DO, the tasks to be performed by the Contractor shall include a meeting with ARI in Alexandria, Virginia or other ARI Field Unit locations at the start of, and at the completion of, each AOS DO.

- At all times the contractor will protect the confidentiality of the survey responses.

- If OMB approval is not received, the Contractor will be paid only for those tasks in the DO which are completed, and which do not require an approved survey instrument. Each AOS DO will usually contain at least two phases as follows:

  - Phase I. **Preparation**. The tasks under Phase I will be the review or development of survey instruments, sampling methodology, preparation of approval packet (if required in the DO), and other items necessary for preparation of the survey administration.

  - Phase II. **Survey Administration, Analyses, and Reporting**. Upon receipt of survey approval, Phase II will involve the tasks necessary to conduct the survey, compile and analyze the data, prepare reports, and conduct in-person presentation of results (if required in the DO). Phase II shall always be contingent upon receipt

of proper approval. If such approval for the survey is not obtained, Phase II will not be authorized and no payment for any tasks under Phase II will be made to the Contractor.

Medium-Term (MT) Program

Applicable Areas. The MT Program is intended to give ARI the ability to conduct a limited number of research or studies and analysis efforts whose duration would not normally exceed 24 months after HumRRO receives a DO. The MT program may only be used for the procurement of non-personal services to perform the tasks specified in the DO, subject to the limitations set forth below.

Conditions of MT Program. This program is intended to resolve problems associated with manpower and personnel issues which require a somewhat longer period of performance than the QR program. The following conditions shall normally apply:

- Each of the MT efforts shall be completed within the period of time specified in the DO, with the maximum period normally being 24 months from the date of the DO.

- Each task of the DO shall be completed by the Contractor within the total time allocated and a final report delivered. Unless otherwise stated in the DO, the tasks to be performed by the Contractor shall include a meeting with ARI, in Alexandria, Virginia or at ARI Field Units, at the start of, and at the completion of, each MT Program DO.